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ORIGINAL DEPARTMENT.

LECTURE.

SANITARY IGNORANCE AMONG HIGH AND LOW.

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But we need not cross the border to seek among our neighbors for instances of sanitary ignorance. Here is what a medical inspector, after a thorough sanitary inspection of the schools of a city not so far from Washington, that the language, habits and culture of its people are different, found only last year: One school in a cheerless building with badly arranged distribution of light; in a second, light not well arranged, pupils face the windows and have to struggle against a constant glare—privy-well located so close to the building that the rooms near it are rendered very offensive by the foul odors that enter when the windows are opened, which is a matter of constant necessity whenever ventilation is required,—heated by furnaces supplied by cold air from the cellar; a third was located in an old dwelling, without a single redeeming feature about it as a school-house; in a fourth, wells in the yard about twenty-feet deep, and tapped to the sewer about eight feet below the surface, thus leaving a large cess-pool twelve feet in depth which is not drained off—cellar damp, unpaved, dirty and unwholesome; in a fifth, from the close proximity of the privy-well to the school there was a leakage into the cellar—this well is drained into the sewer with an outlet pipe above the level of the cellar-floor, and all the yard and house drainage is into this well; in the sixth there were the same offensive latrines close to the building, and the heaters derived their supply of air from a filthy cellar; in a seventh, one room furnished only seventy cubic feet of air to each pupil, and had but one window; an eighth was overcrowded, and had nothing to recommend it but the labors of the teachers; a ninth had a very comfortable appearance outside and a correspondingly cheerless one inside—the privy-well was foul and only partially drained by an outlet pipe near the top; in a tenth there was bad light, cellar air was supplied, and an offensive well close to the building.

Perhaps there are those among you who recognize some of these places as only around the corner from your own dwellings, for here is whence I have drawn these illustrations; and before you proceed to immolate me for treason to my birth-place, listen to an extract from the health officer's statement of the condition of things he found in the schools of the city of my present residence, and derive a crumb of criminal comfort that if you are as bad as bad can be, there are others just as bad. Beginning with a beautiful building, one of the magnificent temples of education of which that city boasts, he found on his first inspection spacious halls, large handsome rooms, heated by steam, amply lighted, well-furnished, provided with a ventilating apparatus communicating with a smoke-stack securing a draught, but supplied with fresh air by cold air-ducts, which, when followed to their mouth, were discovered in one

case to be led directly over a sewer-trap, in another from a damp, close and moldy area, and in every instance conducted under the ground-floor of the building. The furnace-room gave evidence of the regurgitation of sewage, and the janitor stated that during storms the reflux was such as to endanger the fires. In another building so beautiful that a model was sent to Europe, the same objectionable system of air-ducts existed. Thus, "on examination of the opening or entrance to the air-duct in the north-east yard, it was found that the same opening is used for a large sewer-pipe, and is a damp, moldy underground passage. The air-duct entering from the south-east yard is also used for a sewer-pipe, the latter being defective." A third splendid structure had its air-ducts constructed underground; the entrances to these passages, six in number, were found damp, moldy and wet, and containing filth and débris of all kinds. Two sewer-openings are located directly at the mouth of the air-duct on the north-east side of the building, one a cess-pool trap which at the time of the inspection had no water-seal, and the other an imperfect connection with a down-spout.

To satisfy you that this state of things is not exceptional, I quote from the first published report of the health board of a city very near us: Most of the schools receive the air to be heated and distributed from the cellar, which in some of them is very deleterious on account of the dampness and poorly ventilated condition of these cellars. In one school the principal defect is the imperfect underdraining of the large privy-well in the yard, the drain-pipes entering so far above the bottom as to allow a considerable offensive retention in the well at all times. In another, the well had no sewer connection, the drain was not even trapped, and a fecal odor pervaded the building, when it was opened in the morning. Two other schools were just as odorous; in a fifth the water-supply is from a pump only fifteen feet distant from two shallow brick-lined privy-wells; this was the case in another school, where the pump-well was thirty-five feet from the privy-well, and the water not only tasted badly, but was visibly changed with organic matter, and its odor was worse than its taste. The wells were all foul, and the cellar unclean and unventilated. Finally, in a seventh, the light was badly directed, and the heater-air was obtained directly from the cellar, in which from January 1st to April 15th, there had been nearly two feet of water.

This in New Jersey; the following from Baltimore: "In one of the rooms, 18 by 12 and 10 feet high, there were 81 children on the roll; 69 were present on the day of inspection; the remaining twelve were absent on account of sickness. Is it any wonder?" The average cubic air space was 26 ft. when all were present, 31 at the time of inspection. "In this room there was not a sufficient number of seats to accommodate the pupils, who were distributed around, some on the teacher's platform, others on the doorstep, and the rest crowded on the benches. The room had two windows with a north exposure. The children on the seats faced west, receiving the light from the right. In another room, 14 by 20 by 10 feet in height, there were 60 children on the roll and only 42 present—the cubic air space ranging from 40 to 66 feet per child. In all the rooms the supply of light was as insufficient as that of air; and as the building was especially erected for the purposes of a school, the reckless disregard of sanitary needs is the more grossly criminal."

Foul air, then, though the chief, is not the only insanitary abomination of our vaunted school system. Uncomfortable seats and desks torture and deform the plastic, undeveloped little bodies of children, many too young to be at school, or at anything but play. Glaring white walls and dazzling lights staring them in the face or from every direction but the proper one, badly-printed books with type and figures so small as to be illegible without effort, and compulsory night work at home by artificial light, combine to impair their vision. Neglect of provisions for common necessities and decencies, latrines that a brute would shun, the enforced restraint of every natural gestural expression of the emotions and reflex action, which constitute so great a portion of the child's mental and sensory nature, the physical overstraining of the intellectual organs—these are all factors of evil, but the *princeps malorum* is the confined, over-heated, and germ-laden air they are compelled to breathe over and over again. Instinctively one revolts at bathing in water, which a single other predecessor has used, but we do not hesitate to attempt to cleanse the blood of its soilure in the air-bath of the lungs after a hundred others had contributed to befoul it. I wish to give all the prominence and emphasis I can to this ignorance of the contamination by atmospheric filth to which gentle folks, equally with the lowly, subject themselves in parlor, church and school. Even

though the direr effects of disease do not always immediately follow, disgust should prevent the cleanly man and woman deliberately admitting into their bodies the nastiness of human emanations, which are poured into the air from lungs and skin at the rate of three avoirdupois pounds a day by each individual. One hundred gallons of air pass through the lungs every hour, carrying with it at each expiration four per centum of its volume of carbon dioxide and its organic attendants—and the cutaneous exhalation is nearly twice the pulmonary. Dr. Kidder, in his microscopic examinations of the atmosphere, found that human epithelium was the one thing always present on his slides. The *N. Y. Medical Record* states that while the number of bacteria averages 2,500 to the cubic meter of city air, there are 11,000 in the air of a city hospital. What then was the probable microscopic population of the air at a recent mass in St. ———'s church, in Philadelphia, which is described, by one present, as having been literally packed, every foot of standing room being occupied, without an opening for the entrance of fresh air, or for the escape of the foul air from heat registers, gas jets, wax tapers and human lungs —all the vast assemblage being as though shut up in an air-tight box. A hundred little boys and girls for two hours breathed this noxious atmosphere, to be then ushered into the cold rain out doors. How many cases of diphtheria and pneumonia and scarlet fever filled little coffins as the result of this one Sabbath's holy work? The immense ærial ocean in which we live purifies itself without man's aid; but when it is confined and its free diffusion hindered, its retained impurities quickly manifest deleterious qualities of the most virulent type, as in the notable instances of the tragedy of the Black Hole of Calcutta, in which 123 persons died among the 146 confined in a room 18 feet square; the suffocation of 260 out of 300 Austrian prisoners after the battle of Austerlitz; the deaths of 70 of the 150 deck passengers battened under hatches on board the steamer Londondery; and the "sweat-boxes" of the men-of-war of thirty years ago, whose inmates were often found asphyxiated when the doors were opened. Where the obstruction to the escape of vitiated air is not so great, the less conspicuous effects of air-pollution are shown in headache, loss of appetite, indisposition to exertion, fitful, unrefreshing sleep, soreness of the body, aching limbs, general debility, and mental obtuseness, followed after weeks or months of similar exposure by more serious ailments. When this train of symptoms occurs in Washington, the cause is rightly enough attributed to malaria—*malus aër*, in fact, but which quinine is not needed to cure, and only proper ventilation required to prevent. Knowing that the silver and copper and other salts used by the oculist in drops of dilute solutions, accumulate in appreciable quantities on the walls of the hospital ward, it is not hard to believe that minute scales from loathsome affections of the skin, volatile emanations from unclean or diseased bodies, the tainted expirations of those afflicted with detestable disorders, if not permitted to escape by free ventilation, must be taken into the lungs and thence into the blood, and it is sanitary ignorance of the most inexcusable sort which refuses to recognize the fact, estimate the danger, and provide the remedy.

What shall be said of that temper of mind which—the remedy, and an effectual one, having been provided—actually thwarts its applipication? Of this an instance will be pertinent. On board a ship at sea, where human beings are cooped in a floating box, sealed against the admission of water, and of course also of air, except in a few places above the water line, the practical difficulties of supplying the three thousand cubic feet of air per hour which each man requires as on shore are very much greater. Effective ventilation was the difficult problem of nautical hygiene. Attempts had been made by wind-sails and ventilators faced to the prevailing wind, and by opening the frame-spaces between the timbers of the hull on the uppermost or spar-deck, to provide for the admission of fresh air, but this was as feasible in fact as the attempt to blow air into a bottle. The stagnant, fetor-breeding strata in the nethermost depths were never disturbed. Finally it came to pass that the system of ventilation by aspiration was adopted. A hole was knocked through the bottom of the bottle, and the foul air sucked out, leaving the fresh air to come in at the neck of its own accord—and this is practically what has been done on board of the vessels of the navy in which the exhaust method of ventilation has been introduced. The engine operates a fan revolving in a close chamber into which open two large ventilating mains, extending the whole length of the vessel, and communicating by metal pipes with every apartment, passage-way, cul-de-sac or confined space. The suction induced extracts the local air, to be replaced by the fresh air that finds its own way

from the exterior. Nothing can be more admirable, nothing more effectual—the only indispensable condition being that the blower shall be made to revolve—and this I have good reason to know is frequently omitted to save the cost of the necessary fuel. Can sanitary ignorance reach a lower level?

The good fathers of the Church, in their warfare upon our fleshly counterpart, have not been the only ones who have made the worship of the heathen goddess Hygeia unpopular. The refinements of so-called modern culture, in their promotion of ease and comfort, have done their share towards weakening and undermining the physical edifice. Huge fire-places and loosely-fitted doors and windows—the one establishing an upward current through the chimney, the others permitting the free ingress of fresh air—have given place to hot-air furnaces, which pour their blasts into rooms sealed on every side to exclude cold. The pasty complexion which characterizes the luxurious occupants of overheated houses is one evidence of lost vigor; and as if to soften the muscles and attenuate the limbs still more, the little effort required to move about the house is spared by adjoining closets and bath-rooms to the bed-chambers. Consequently, the more palatial the establishment, the more objectionable it will probably be as a healthful residence. A private dwelling, perhaps the finest recently built in Washington, has, under its present proprietor. had its plumbing completely changed. Assuming that a structure of such pretension must be all it should in respect to essential hygienic precautions, he learned, after the terrible ordeal of a preventable zymotic disease, that it was only a stately monument of sanitary ignorance—and this is no isolated instance. I examined a house under construction, with a view of making it my residence, and was so pleased with the arrangement of the lower floors that I thought it almost unnecessary to go up stairs, where, however, I found comfortable chambers, and wedged among them a closet, lighted only by a gas-jet, and, on the floor above, to serve as a reservoir for mephitic air, a room without a window save the opening into the closet well. The owner had done his own planning, and was doubtless as well content with it as a friend who had built a princely edifice in Philadelphia, whose child died from typhoid, whose wife recovered with a shattered constitution from a similar attack, and who, while in the very prime of life, attributed his own premature debility to the overwork of a busy merchant, and was unwilling to believe that the very comforts and conveniences of his house were the cause of all the misfortunes by which he had been smitten. I have in mind another very elegant mansion, wherein wealth had been lavished upon all the extravagances of the upholsterer's art, where every human want had been provided, and every conceivable contrivance was so close at hand that personal exertion was reduced to a minimum, where the eye rested only on the beautiful, and every other sense was charmed—yet for all, the damask hangings, and satin and rosewood, and fragrant flowers, were only the mocking mask of filth, and the child of the household died from a filth disease—a preventable disease—a disease which was only possible because these parents of high degree were as ignorant as peasants of nature's simple needs. In many a rich man's home today, while guests are reveling and dancing away the minutes, some young life is being sucked out by the vampire of preventable disease in some far out-of-the-way chamber.

In private dwellings, in hotels and public edifices, the grossest ignorance has been shown in this matter of the pollution of the air by so-called modern conveniences. The Chief of a Bureau whose office is in one of the newest of the public buildings of the Capital, not long ago discovered that the waste from the steam register in his window-recess opened without being trapped into a sewer, and I know of another establishment in which there is a display of elaborate traps about the lavatories, where side by side are bath-tubs overflowing into the soil pipes, out of sight, and not trapped at all. When you rent a house, how many of you ever think to inquire critically about the plumbing? When you go to a hotel, what gratifies you most? Is it not the communicating bath and the ever-constant supply of hot and cold water from the permanent wash-stand? Does it ever occur to you that there may be a little pipe to carry off the overflow of water on the wrong side of the trap, and ventilating the street sewer directly into your room, as was found to have been the case in a room in a leading Washington hotel, in which you and I, perhaps, have slept.

I promised at the outset that I would cry *Peccavi* with you, and here I admit that I was once as egregiously deceived as any tyro, notwithstanding my experience of the tricks and shams of the house-building fraternity—such as "Quaker" ventilating registers, which open into blind spaces in the walls where there are

no flues—putty-joints carefully blackened to counterfeit metal—pipes that enter ceilings and floors and there disappear. The occasion was the construction of an apartment under my supervision, intended to be a model of sanitary propriety, with its latrine perched in a box entirely outside the walls, and having, as I directed, its soil-pipe conducted through a cemented space in the outer wall. Even my successor commended the arrangement, and generously shared my chagrin when a few weeks ago, it was discovered that the adroit plumber had managed to save himself trouble, or rather have his own way, by effecting a connection under the floor of my model apartment with an old interior soil-pipe by another, which actually inclined upwards to its outlet. When the accumulation of years had narrowed the caliber of the pipe, and the increased pressure had loosened the defective joints, the escaping odors exposed the fraud. The revelation scarcely mortified me more than the discovery at another time that I had lived nearly two years in a house in which the soil-pipe had no outlet into the street sewer, and that my children's lives had only been saved by their habits of out-door exposure by day, and of sleeping with windows wide open at night. Doubtless in every street in every great city there is some such another underground mystery, under many a cellar a hidden quagmire unsuspected until its victim falls. A serious case of typhoid fever during my duty at the Naval Academy, led to the examination of an old earthen drain near by, and the discovery that it was completely filled for many feet with a mass of matted root, which had grown from one tiny rootlet that had found entrance through a minute flaw in the pipe. A few weeks ago, an officer of the health department of a neighboring city told me of the instance of a family of blooming children, who had come to reside in a neighborhood admired for its handsome residences and the absense of shops and other proletary eye-sores, who within a year lost color, strength and flesh, and were, as their mother said, always ailing. At his suggestion the house appointments were examined, and a cess-pool without outlet discovered under the cellar-floor, which emitted its fatal air without the hindrance of a trap into the house by way of the bath-room and the kitchen-sink. The landlord demurred at making the necessary changes, because he had lived there himself unscathed. "Where there is a death from typhoid," said England's great sanitary officer, "somebody ought to be hanged." Certainly where a single case of zymotic disease occurs, diligent inquiry should be made as to its cause. Where several happen, there is an absolute certainty that some wrong exists, which should be righted; yet I know of a neighborhood where such diseases have prevailed in a block of buildings drained only by an old twelve-inch sewer, which from the workmanship common when it was laid, is probably as level as a corduroy road, and leaks at every joint. Nevertheless this death-trap like a thousand others must remain until authority is vested in some one to discover and remove them at the expense of the wilfully or ignorantly neglectful owners.

Were I asked what functionary in the District of Columbia performs the most onerous, responsible and commendable duty, I should unhesitatingly single the inspector of plumbing. But he need be Hercules with Briareus' hundred hands, to perform the Augean task which must be done before even Washington, the fairest and cleanest city in the Union, can claim to be in a proper sanitary condition. First, he has to remain in his office from 9 a. m. until 1 p. m., to examine the drainage and plumbing plans of every building erected in the city, and ascertain whether they comply with regulations; and if he approve them, give a certificate, upon which the inspector of buildings issues a permit to build. After one o'clock he is expected to make a personal inspection of every house in course of erection, alteration or repair, and before he can certify that the work is satisfactory, and in compliance with the regulations governing plumbing and house-drainage, these inspections must be at least thrice repeated; first, when the iron drain-pipe is laid underground, it is required to be filled with water, and to remain full until seen by the inspector; second, when the vertical soil and waste-pipes are attached the same test is made; and third, after all the fixtures, such as water-closets, bath-tubs, wash-tubs, basins and sinks are in place and properly connected, the water turned on from the street and everything in working order. Can he, and the single assistant, only recently allowed, do all this, and do it thoroughly, in a city growing at the rate this does? Assuming that he can and that the strong arm of the law will support him in protecting against future insanitary follies in house architecture, what does it avail in face of the thousand upon thousand faults of the past that remain uncured?

The new house may be innocuous because

new, but what of the old house with its hidden cess-pool in the cellar, or so near the building that the prevailing winds blow directly from it into the chamber windows; with its earthen drains under the cellar floor, that have no fall or run uphill, broken or with leaking joints, saturating the spongy earth with sewage; with its old honey-combed iron and tin pipes that only needed to be smartly tapped to fall to pieces; with its untrapped and unventilated pipes that admit the air of the sewer or cess-pool through closet, bath-room or kitchen-sink, directly into the house; with its space under the building where light never penetrates, and its dark unclean cellars, whose stagnant air tainted with mildew, is heavy as the tomb's, where vegetables lay rotting and cobwebs are spun and vermin breed and multiply and rats burrow and undermine; with its dark rooms made more dark with heavy curtains, its cupboards and store-rooms where stale food decomposes, its clothes-presses and closets where soiled garments hang and cast-off shoes mold; with its cisterns and foul wells that are never cleaned; with any or all of the thirty or more defects in plumbing and draining, which Mr. Frederick N. Owen, the sanitary engineer, enumerates as having been encountered in his own experience—defective water-closet apparatus; cisterns with overflows joined to soil-pipe or drain; safes under closets or basins connected with soil-pipes or drains; two or more fixtures with unventilated traps on the same line of pipe, siphoning each other when used; scullery-sinks connected to drains admitting foul air to houses, not only through traps, but through brick-work joints; rain-leaders used as ventilators to drains, delivering foul air into bedroom windows or under eaves of roofs, etc., etc. Can any house claim to be safe as to health in which any one of these defects exist? How many of you can honestly declare of your own knowledge that not one of them is to be found under your own roof? Do you know that five, ten, twenty, all of them, are not there? How many of you have sought to ascertain the facts concerning them? Will you plead your ignorance in excuse if your wife or child or some other dear to you die from typhoid, from diphtheria, from scarlet fever, from any other zymotic disease? Whose but yours the fault that there is no well-trained corps of sanitary inspectors to do these things for you? Till such a corps is created, the responsibility rests upon each householder. You can make no better preparation against an epidemic visitation than to examine the possible sources of air-pollution in your own dwellings. See that the pipes within are sound, well-trapped and ventilated; and then follow them away from your house to the sewer, and thence to its outlet; and then observe what becomes of its contents, lest these are brought back to you in your drinking-water. If you do not take these precautions, you should feel that you are sleeping over a volcano. A thousand venturesome ones may even peer over the crater's brink and sniff the sulphurous fumes unharmed, but some day the thin crust breaks and you are overwhelmed by the streaming lava.

(*To be continued.*)

COMMUNICATIONS.

THE CAUSES OF PHTHISIS.

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[Translated by E. P. HURD, M. D., of Newburyport, Mass.]

In the following paper I shall assume, what I believe that I have elsewhere sufficiently proved, the bacillary origin of pulmonary phthisis. I shall at present concern myself only with the atmospheric conditions of causation. I shall first speak of the atmosphere in its relation to microbes in general; I shall then touch upon atmospheres which are especially *phthisiogenous*, under which head will come up for consideration the air of cities and crowded habitations, and lastly, as contrasted with atmospheres favoring phthisical contagion, I shall treat of cold atmospheres, marine atmospheres, and the atmosphere of altitudes.

The atmosphere is filled with spores of all kinds. It contains also fully-formed bacteria and bacilli, the latter, however, in relatively small quantity. It will therefore always be an object of interest to determine the amount of these microbes in the air of respiration, and their nature, whether specific or not.

According to the researches of Maddox, undertaken in 1870, to ascertain the microphytic contents of the atmosphere, and continued with the greatest success since 1879 by Miquel, the quantity of microbes, measured by the æroscope (as modified recently by Emmerich), varies according to several factors.

1. *The season.* In summer we have the maximum; in spring, the minimum. It is, however, important to note that too prolonged heat is quite a perceptible cause of diminution in the umber

of germs; the thermometer may give the key to variations of the season, but not to the weekly oscillations.

2. *Atmospheric pressure.* The more this is elevated, the more pronounced the quantity of microbes in any given area. When the barometer is below the normal, the germs are the fewest.

3. *Dry Weather.* The minimum hygrometric state favors the germination of bacteria, which are few in damp or rainy weather.

4. The winds exert only a doubtful influence. At Montsouris it was found that there was an increase of germs coincident with the north wind.

5. *Ozone*, when in comparatively trifling quantity, equally favors the multiplication of germs.

6. *High altitudes* exert a very marked influence. This fact is very apparent from the researches of Pasteur on Mount Jura and Mount Montanvert; of Tyndall at Chamounix; of Miquel and Freidenrich on the heights of the Bernese Alps. The contrary results obtained by Pouchet, Jolly, and Musset, from analysis of the air of the Pyrennes, and of Yung, from examination of the air of Switzerland, which was found to be quite as impure as that of Paris, must, I think, be explained on the supposition of defect in the manipulations.

I. These are the figures obtained by Miquel:

1. In Paris, 55,000 bacteria found in 10 cubic meters of air.

2. At Montsouris, 7,600.

3. At Hotel Bellevue (Thoune, 560 meters above the level of the sea) only 25 were found in 10 cubic meters of out-door air, and 600 in the same measure of in-door air.

4. At Lake Thoune only 8 were found in an equal measure of air. At an elevation above 2,000 meters there were none.

On the Eiger at 4,000 meters, at Strahlock and at Petite Scheidek, none were found.

All these differences in the number of microbes in the air of mountainous regions of Bernese Alps seem due, according to Miquel, to the following circumstances:

1. To the lowered barometric pressure of these high elevations; the dust particles are the more disseminated and dilated the higher you ascend.

2. To diminution of the density of the atmosphere, which can no longer hold the corpuscles in suspension.

3. At certain heights the bacteria cannot live on account of the cold—at the zone of perpetual snow, for example.

4. The rarefaction of the atmosphere, such as is found at high elevations, is a more important factor than the cold.

II. *Nature of the Atmospheric Microbes.*—All the microbes found in the atmosphere are of the ordinary kind; there are, besides, a few bacteria; bacilli are rarely found.*

III. *Methods of Research.*—All the microphytes, according to Emmerich, develop more readily, more energetically, and more rapidly in animal or vegetable liquids, sterilized by cold (the expressed juice of meat and juice of cabbages, for instance,) than in liquids deprived of parasites by ebullition; from this it is concluded that a principle very favorable to the development of bacteria in these liquids is destroyed by heat. But although the culture of divers microbes succeeds well in extracts of meat sterilized at high temperature, experience nevertheless teaches that decoctions of meat fail to possess the nutritive and other properties that can attract most of the parasitic germs diffused through the atmosphere. It is for this reason that methods actually in use do not suffice to enable us to find the pathogenic organisms in the air. The infectious inoculations undertaken by Fodor by the aid of bacteria cultivated in isinglass, and secluded from the air, demonstrate that there are in the atmosphere but two pathogenic forms—the *micro-bacterium agile* and the *desmobacterium*—and yet these are not capable of producing aught but septic infections. This want of success is due chiefly to this circumstance, that the nutritive culture liquids in use in æroscopy are almost exclusively monopolized by the common bacteria of putrefaction.

Emmerich has, it is true, succeeded in excluding the latter to the profit of the former micro-organisms; but we do not know if this method may not destroy at the same time the pathogenic organisms.

Hesse has just been employing other methods, and he has arrived at this conclusion, that the bacteria, properly so-called, are so rare, that in winter and in summer they are found with difficulty, but that in all seasons you may meet with their germs.

THE ATMOSPHERE OF PHTHISICAL PATIENTS. ATMOSPHERE CHARGED WITH THE BACILLIFEROUS PARTICLES OF SPUTA.

The transmission of the tuberculo-bacillary virus from the phthisical to the healthy man cannot take place unless the air of respiration is charged with the dried sputum of the patient. Without this there is no infection possible; the atmosphere, in fact, contains no bacilli, and it is as much as ever a question of doubt if there are spores which can engender the disease by entering a living organism.

* See Emmerich, in Archives d'Hygiene 1883.

In order to determine the deleterious property of the air expired by phthisical patients, the attempt has been made to make them respire this air where animals can breathe it, or to make the animals breathe air which has previously been passed over phthisical sputa.

I. *Air Expired by Phthisical Patients.* The first kind of test has not succeeded: the expired air does not contain and does not remove bacilli. May 22, 1883, Gibaux, the veterinary surgeon, communicated to the Academy of Sciences certain facts tending to prove the noxious character of expired air; but Tappeiner, on repeating these experiments, obtained results which were nil.

II. *Air Contaminated by Sputa.* It is not the same with air charged with bacilliferous particles derived from sputa. Tappeiner was the first (in 1877) to definitely solve the problem of contagion by such contaminated air. Eleven dogs were subjected, some of them permanently for several weeks, some for several hours each day, to the influence of breathing air containing the pulverized products of phthisical sputa, taken from subjects with pulmonary cavities, and diluted in ten times their weight in water. In all these animals tuberculosis commenced at the end of the third week.

The same year Dr. Reich, of Nuremburg, reported ten cases of death from tubercular meningitis, the victims of which were infants that had, as he believed, contracted the disease from a tuberculous midwife, who had a mania for embracing them and breathing into their mouths.

The results announced by Tappeiner were severely criticised by Schottelius, who obtained the same effects with irritating substances that were not tuberculous. Meanwhile Bertheau and Giboux, in France, verified the experiments of Tappeiner; also Frerichs and Weichselbaum, in Germany and in Switzerland. Later, Baumgarten, as a result of his own experiments, denied all these facts. All this proves simply the difficulties of the experimentation, but in nothing contradicts the data of observation.

III. *Microbes in the atmosphere of the habitations of phthisical patients.*

Here we meet with the same difficulties. Wehde (see a dissertation published near the end of 1883, and cited by Bollinger) has made some interesting investigations pertaining to the atmosphere of rooms occupied by persons sick with phthisis. He collected on plates, covered with a thin stratum of pure gelatine, the floating particles of the sick room; this gelatine, which was turbid and opaque, was washed with distilled water and injected in fifteen hares and guinea pigs, four of which succumbed; in all the eleven others the result was absolutely negative.

Conclusions. — Contagion by the atmosphere, much more marked in its phenomenal effects than contagion by the ingesta, is nevertheless of so special a nature so restricted, and so difficult of experimental demonstration, that we are obliged to admit that a certain number of the factors of transmission escape us.

PHTHISIOGENOUS ATMOSPHERIC CONDITIONS.

In solving the social problem of climatology, in studying the influence of surrounding media on the health of the human race, medicine has been compelled, after long ages of speculation, to abandon its theoretical views, and confine itself to rigorous and impartial observation of facts. Now, it has been shown that many preconceived notions about climate are not well founded, and that countries with varied temperatures, meteorological and other conditions, and with altitudes quite different, are nearly equal with respect to the prevalence of phthisis. The disease, especially rife in cities, decimates the populations of temperate regions as well as regions in the torrid or frigid zone. It pursues its work of destruction in valley and plain, in damp as well as in dry lands. It exists and acts everywhere, provided that the one condition is fulfilled, namely the presence of human beings from whom the contagion may be derived and transmitted. The proofs that such is the only condition are innumerable. They are furnished to us by all the circumstances of human life—I refer more especially to social civilized life. This condition comprehends:

1. Living in cities as compared with living in the country; city air is pre-eminently microphytic.

2. The crowding of persons in barracks, workshops, boarding-houses, schools, jails. We have here an atmosphere microphytic and confined.

3. Climate exerts its favorable influence only through purity of the atmosphere; that is, through absence of microphytes.

4. Climate does not, in so marked a degree, influence the multiplication of parasites through changes of temperature as it has been supposed from purely empirical considerations to do.

5. As far as altitude is concerned it has only an indirect action, namely, as before said, by insuring fewness of microbes.

MICROPHYTIC ATMOSPHERE OF CITIES AND OF LARGE COLLECTIONS OF PEOPLE.

I. Everywhere, city life is disastrous from the point of view of phthisis. The mortality from

this disease in Philadelphia is 20 per cent.; in Marseilles, 25 per cent.; in Paris, 25 per cent.; in London, 23.6 per cent.; in New York, 19 per cent.; in Stuttgart, 15 per cent.; in Copenhagen, 13 per cent. These differences are due to nothing but the bringing together of masses of people; climate is of trifling importance in comparison with this. This has been proved by Bouchardat's statistics, and it is, in fact, among new residents and immigrants that the disease is the most rife, as is the case with typhoid fever, which is also a parasitic disease.

II. *Collections of People.*—It is where large numbers of people herd together that you find the maximum figure. There, more than anywhere else, the germs of contagion find habitat. In the conscripts that come from the country to the camp the mortality from phthisis is much greater than in the acclimated soldiers, the former not having previously been exposed to the germs of contagion. Barracks are such sources of phthisis that the Royal Guard of England, quartered at London, loses yearly 12 per cent. of its members, or three times more than the rest of the army. Tholozan says truly that the mortality in the French army in times of peace and of barrack-lodging is much more considerable than in times of war. If in the great boarding schools the disease oftener attacks the pupils that board there than those who board at home, it is simply because there are more sources of contagion in these large houses, for it is rare that you do not find there some tuberculous child or some phthisical person. This is still more true in its application to the congregated inmates of convents, in the case of whom the mortality constantly increases from the first to the fourth year, attaining, according to Lombard, the startling figures of 27 per cent In the prisons in which young convicts are confined, tuberculosis and scrofula (which is but the exterior form of tuberculosis) produce the greatest ravages. At Millbank jail three-fifths of the prisoners die of phthisis. In the penitentiaries of Algiers, says Pietra Santa, out of one hundred and fifty-three deaths, fifty-seven may be reckoned as from phthisis.

III. *Vitiated Air, Insufficient Air.* It may be objected to these data that in these accumulations of human beings, the air is vitiated by the carbonic acid gas expired, or is defective through relative diminution of oxygen, or is even insufficient altogether. The truth is, that the excess of carbonic acid is, under these circumstances (exception being taken of cases of over-crowding) scarcely appreciable. 20.8 liters in every 100 cubic meters, instead of 20.02, according to the figures of Angus. As for the impoverishment of the air with respect to oxygen, this is not calculable by chemistry, nor appreciable by the test of respiration; and if, moreover, the quantitative proportion of pure air were manifestly inferior to the exigencies of the economy, there would result a respiratory anæmia rather than phthisis. Now, phthisis and anæmia have really no common bond of union, there not being any necessary affinity between them.

The respiratory anæmia which gives rise to a lowering in the figure of the blood globules (hypoglobuli) has been wrongly confounded with that physiological deprivation, which affects the entire organism, and produces complete denutrition, and which, moreover, is sometimes, but not always, the antecedent of phthisis. Therefore, confined air which has ceased to be vivifying, and contains an excess of carbonic acid, is not a direct, nor even a remote cause of phthisis; the predispositions created in the organism are wholly dependent on the contagium, which is the more prolific of mischief the more dense and crowded the population. It is worthy of remark, that countries which are thickly inhabited have a much larger ratio of mortality than countries thinly inhabited. In London, out of every one thousand inhabitants 37 die of phthisis. In North Hampshire, a farming country where there are only 4,500 inhabitants to the square mile, or twenty times less than in London, the mortality is but 2.4 in every thousand.

(*To be continued.*)

Hospital Reports.

NEW YORK HOSPITAL.

CLINIC OF PROF. WILLIAM H. DRAPER, M. D.

Reported by W. H. SEELYE, A. M., M. D.

Syphilitic Cephalalgia.

Patient is 35 years of age, and married. Was admitted to the hospital to-day. Does not use stimulants to excess. He was exposed to specific infection five months ago, and not long after he found a chancre on his penis. This was followed by an enlargement of the glands in the inguinal region, but there were no other symptoms. Three months ago he contracted malaria while living on Long Island. He had a chill every second day, and each was followed by fever and sweating, and accompanied by severe headache. The chills finally ceased, but the headache has persisted until now. It is worse at night than during the day, and most severe upon the left side of the head. There is no pain in the back, neck, or

anywhere else. He has taken a good deal of quinine, but this has nas not relieved the pain in his head. On admission his pulse was 76, respiration 16, and temperature 99.9°.

Gentlemen, you have heard the history of this case. The man was brought here complaining especially of headache, which was rather more severe on the left side, and as he says worse at night than throughout the day. He also describes the pain as occurring in the distribution of the supra orbital branch of the fifth nerve. There is also a history of a chancre on the penis five months ago, and since then it has persisted with more or less severity until the present time. Now this subjective history is one that is supplemented by certain objective signs that make the diagnosis perfectly clear. If you will examine the skin on the anterior surface of the chest and belly, you will observe a well-marked erythematous blush, which is pretty well diffused. But if you look at it with a cross light you will observe that this is not a simple erythematous blush due to a macular eruption, but that it is a well-defined papular eruption. The papules are not very prominent, but still they are distinct, and the eruption is most marked upon the anterior surface of the arms and on the face. The erythematous parts are broken by zones of healthy skin upon the chest, and the same is true on the face. And I presume that if I could get a look into his mouth, I would find the mucous membrane of the hard and also of the soft palate reddened in the same way as the skin, and perhaps I would find some mucous patches, as they are called. But it is not only by inspection that you obtain the most prominent objective signs. If you examine the glands in the groin, and those in the back of the neck, and the chain that runs down the arm, along the internal border of the biceps, you will find them everywhere enlarged considerably, and the epitrochlear glands can be distinctly felt in both arms.

Now the diagnosis of this case seems very plain, because you have heard the history read, and have seen the patient examined. But without these aids the diagnosis of a case of this sort might very easily escape your appreciation. For example, this patient might have come into your office and have simply said that he had suffered constantly from headache for the past three months; and as this is not a very common history of headache, you would have examined carefully for the possible causes, and you might by accident have neglected to observe the eruption on his body, and so have overlooked the true cause. And because the pain is diffused more or less over the whole head, and is disassociated with any periosteal tenderness or swelling, and because you might suppose the patient to be of unquestionable character, no suspicion of the true nature of the trouble might enter your mind. Then you might examine him as to the location of his residence, with a suspicion of malaria, and if you found that he was living in a malarious region, you would say that malaria was the probable cause, and then you would examine him more carefully to see if there was any periodicity in the return of the pain; and if you thought that there was, you would give him quinine and send him away. But this would not do him any good, and so he would come to you again, and then you might say that there was possibly some derangement of the digestive organs, and you would treat him for this, and again you would fail. Then you might take his temperature, and finding some fever you might think that he possibly has a typhoid fever, and perhaps you would treat him for this for a while, and yet he would not get any better. Now by putting aside all your knowledge of the patient's virtuous character, and by making a thorough personal examination of his body at the beginning, you would avoid the possibility of all such errors as I have described. I say, therefore, that you should put aside any considerations of false modesty, and should ask him or her plainly whether he has ever had any venereal disease. Or if the character of the patient is such that you cannot go at it in that way, you can ascertain if there is any glandular enlargement anywhere, and above all whether there is any eruption on the body. And for this purpose you should yourself make a thorough examination of the skin, with a proper consideration for delicacy, especially if it be a lady, and by so doing you will be very likely to reveal the true cause. In a great many instances patients will tell you that they have no eruption on the body, and then upon opening their clothes you will find a distinct erythematous eruption, which may occupy only the anterior surface of the breast and belly, or it may be on the back and nowhere else. I shall never forget how strongly this necessity for personal examination of patients was impressed upon me when I was a medical student, twenty-five years ago, by M. Clare, the syphilographer. He always insisted upon the importance of our examining the skin for ourselves, and of not taking the patient's word: for he said that often on removing the patient's clothing, we would find an eruption just where the patient said that there was none. But then supposing there was no eruption at the time of your examination, yet if you found, as there are here, multiple enlargements in the glands of the groin, axilla, neck, and arms, your diagnosis is made; and then if you put the patient upon anti-syphilitic treatment, he will get rapidly better.

Now there is another point of interest in this case. This man's chancre occurred about five months ago, and at the end of two months, about the usual period, he began to show symptoms of general infection, such as fever, and neuralgic pain in the head; and this has been continuous ever since. Now, the severity of the neuralgic pain which the patients with syphilitic fever complain of varies very greatly. Sometimes it is not complained of at all; and the reasons for this difference are the same as are found for such variations in ordinary febrile conditions—that is to say, reasons connected with the individual himself. You know from personal experience how differently different people suffer from pain in the febrile condition, and how some patients with a very high fever suffer very little discomfort, and vice versa. The cerebro-spinal symptoms vary very greatly in febrile conditions, and they vary most of all in syphilitic fever. Sometimes the suffering is most atrocious. I have seen patients suffering so intensely that large doses of morphia were necessary to relieve them, who were promptly

and permanently benefited by putting them upon anti-syphilitic treatment. In syphilitic fever neuralgia of special nerves, such as any of the branches of the fifth nerve, is very common. Ordinarily, these patients are disposed to headache, and to pain in the limbs, and articular pain in the joints; and this is very different in character from the osteotrophic pains proper which come from lesions in the periosteal membranes, such as occur in the later stages of constitutional syphilis.

But pain is not the only disturbance from which these patients suffer in this secondary fever of syphilis. Occasionally they suffer from attacks of petit mal, and occasionally they even have attacks of regular convulsions, and occasionally they become maniacal. And I have seen the aphasic condition a number of times in persons suffering from this fever, and I have sometimes seen temporary paralytic phenomena occur as well. Yet these symptoms, as a rule, are very different from those which occur in the later stages of syphilis from disease of the intra-cranial periosteum. They probably depend upon some transient disturbance in the circulation, and they have not the same significance as those which are often seen in the tertiary period. Now, you may ask whether this syphilitic fever is ever associated with a high temperature. There is not usually a very high grade of fever, although I have seen a temperature of 103°. But more commonly it does not exceed 101°. In this man it is about 100°.

The treatment of these cases is fixed and specific. There is but one way that I know of to control this fever, and that is by giving mercury. Quinine and digitalis and alcohol will not help him. Mercury is the only thing in my experience, and in the experience of others as well, that will quell this fever, and that speedily. This man will be put on the mercurial treatment, and the form of administering it may be varied considerably while accomplishing the same end, and after a few days he will probably feel tolerably comfortable. Any of the various methods of giving the drug may be employed. But the iodide of mercury by the stomach is perhaps the most common and satisfactory form, though the bichloride is also much used. But however given, it is always with the view of producing its specific effects on the gums, and of then keeping the patient under its influence for a long time. We will start this man on three grains of blue pill three times a day; and in order to give him rest we may have to give him opium at night in moderate doses. But this is only as a temporary measure, to give him comfort.

Medical Societies.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting, Thursday, April 2, 1885.

The President, Dr. B. F. Baer, M. D., in the chair.

The President exhibited the specimen and reported the case of a rapidly-growing

Ovarian Cyst.

A patient of Dr. G. Walls, of Lock Haven, Pa., M. L., æt. 26, single, puberty at 14, always well, and possessed of a remarkably fine physique, tall and robust, felt some pain and uneasiness in the ovarian region three months ago. She was examined by Dr. Walls, who found the right ovary enlarged to the size of a large orange. She soon after found that her abdomen was increasing in size.

On March 9 I saw her. She was beginning to show facial signs of ovarian disease in slight emaciation, pallor, and the peculiar distress of countenance. The menses were regular; the abdomen was distended to the size of the eighth month of pregnancy, and was perfectly symmetrical, pyriform in shape, dull on percussion, with a resonant corona, extending around from one flank to the other; and there was marked fluctuation. Vagina virginal, cervix uteri pointing slightly forwards, body retroverted and mobile. The lower border of the abdominal tumor could be touched per vaginam. The uterus was not affected by the movement of the tumor.

Diagnosis,—Ovarian cystoma. Immediate removal advised.

Operation.—Assisted by Drs. Walls, Hayes, and Lichtenthaler; in the presence of Drs. Watson and Ball. Incision, two and a half inches, fat in abdominal wall at least an inch in thickness. Tapped the cyst, which contained at least a bucketful of thick fluid, the color of pus. Removed the collapsed tumor through the small incision; there were no adhesions; ligatured the short pedicle, and dropped it. The left ovary was found to be as large as a walnut, and undergoing polycystic degeneration; it was also removed. The incision was closed with six silk sutures. The patient recovered without an untoward symptom.

The rapidity of the development of this tumor was remarkable, and justified me in bringing it before you. The other ovary is a beautiful specimen of beginning polycystoid disease. It is a curious fact that of my last six ovariotomies, in not one of them did the period of development extend over nine months from the time the disease was first discovered—one of them only three months, as just reported, from the time it was found by Dr. Walls to be the size of an orange. They were all good-sized tumors, two of them weighing nearly forty pounds each.

The Bromide of Ethyl as an Anæsthetic in Labor.*

Dr. Montgomery, in reviewing the various anæsthetics, said chloroform is objectionable, in that it causes inertia uteri and tedious labor, and increases the danger of post-partum hemorrhage. The relatively infrequent fatal cases under its use in surgical practice, and the still more rarely serious results from its use in obstetrics, forbid its habitual use. The use of ether in natural labor is infrequent, because to relieve pain the patient must be profoundly etherized. Partial etherization but destroys the ability to bear pain, without obtunding sensation. Besides, Tait has demonstrated that ether passes rapidly into the circulation of the fetus, endangering its existence. The mixture of nitrous oxide and air, advocated by Klikowitsch, requires a special apparatus, and is unwieldy. The ideal anæsthetic is one that is

* The entire paper will be published in the Amer. Jour. of Obstetrics.

safe for mother and child, certain in its effects, rapid in relieving pain without producing loss of consciousness, and whose effects pass off quickly. All these demands are met by the bromide of ethyl. He enumerated 112 cases in which it had been used, twenty-nine of which were in his own practice. None of the mothers died, and but three of the children. In none of the latter could death be attributed to its use. It was administered during the second stage of labor by placing a napkin, wet with a few drops of the ethyl, over the face of the patient at the advent of each pain, and withdrawing it as the pain subsided. Unless a drachm was used, the sensation of pain was obtunded without arresting consciousness. The process of labor was carried forward vigorously and quietly, the patient ready to exert or withhold voluntary aid as her attendant might direct, and the expulsion of the head was attended by no greater pain than accompanies the evacuation of obstinately-constipated bowels. His experience did not lead him to believe that its use would induce inertia uteri or increase the tendency to post-partum hemorrhage.

Dr. E. M. Barr is much interested in this subject, and thinks from this report that the indications for the usefulness of the bromide of ethyl are favorable. He would like to know to what degree the patient returned to consciousness between pains. He will use bromide of ethyl as an experiment; but he will say here that his old combination still gives him the very best effects, with perfect safety. He has continued to use it in almost every case of labor since his report on anæsthetics in labor (see MED. AND SURG. REPORTER, March 13, 1880). He would feel some hesitation in using the bromide of ethyl, as it is dangerous, even if not so much so as chloroform. How would it act if mixed with ether? The objectionable qualities of chloroform and ether balance and overcome each other, and the addition of alcohol to the mixture prevents their explosive action, so to say; that is, the sudden effect of a full and deep inspiration of the strong vapor of the anæsthetics is prevented by the admixture of alcohol in the proportion of chloroform one part by measure, ether three parts, and alcohol two parts. If a portion of this mixture be placed in a saucer and heated, it will all evaporate together; the ether does not pass off from the alcohol. This mixture soothes the pain and makes the patient happy. The excited or drunken stage of ether is avoided; the danger of chloroform is avoided. Unconsciousness is unnecessary, and is not produced. If bromide of ethyl has any of the dangers of chloroform, they are unchecked by admixture with correcting agents. Dr. Barr related the particulars of a case in which he had employed his mixture, to show how kindly it acted in presence of suspected functional heart disease. In this case its administration was continued for nine hours; the pain was relieved, there was no vomiting, no effect upon the pulse.

Dr. R. P. Harris remarked that chloroform was considered perfectly safe as an anæsthetic in labor. Playfair, in his last book, advocates it on this ground; but there have been fatal cases. The danger of an anæsthetic, can only be ascertained after it has been used and reported by many observers, so as to get an average. Some men are careful and cautious; but all are not. The use of mixed anæsthetics is becoming more general in England.

Dr. W. M. Welsh, upon invitation by the President, remarked that he had had no experience with bromide of ethyl, and but very little with other anæsthetics. He had given ether in one case, and a troublesome condition of intoxication had been developed. He was applying the forceps, and the patient suddenly seized one blade, and wrenching it out of the vagina, tore the vulva. He prefers to get along without the use of anæsthetics.

Dr. Henry Leaman, upon invitation by the President, said that he also had no experience with the bromide of ethyl. He does not hesitate to use ether in bad cases of labor, but he does not employ it when he can avoid it. He is not yet convinced that the use of anæsthetics in natural labor is advisable. There has not yet been formulated a satisfactory definition of natural labor. He is now engaged in studying that subject. He has observed in private practice most of the positions described by Engelmann in his papers on primitive obstetric practice. The sympathetic system in labor reacts upon the cerebro-spinal system, and produces the condition of nervous excitement which is seen in the patient and which often extends to the friends of the patient, and even to the doctor in charge of the case. After a close observation of over 600 cases, he thinks labor can be as natural a physiological operation as respiration or the circulation of the blood, or any other function of the body, with this one difference—that whereas the ordinary performance of function is pleasurable, in labor pleasure is replaced by pain. He is not in favor of the use of anæsthetics merely to remove or obtund this pain, as it is natural, and anæsthetics may interfere with the natural process and cause relaxation or retard involution, resulting in that root of endless misery, a sub-involuted uterus.

He has been making careful studies with a dynamometer, which measures the available pressure. I believe that it gives the sum of the pressure applied to the ovum expressed in the projection of the advancing part, against which it rests. He will continue these studies, which are not yet complete. The force of the accessory muscles, as the diaphragm and abdominal muscles, takes no real part in the expulsion of the fœtus, but merely embraces the uterus, preventing any rebound or loss of force when the ovum impinges against the pelvic wall or perineum, their action being to sustain or hold the uterus closely to its work. The entire force exerted is not nearly so great as is usually supposed. The force of labor does not exceed that of arterial pressure, which I think is about six pounds. The exit of the child is not violent, but gradual. It is a popular belief that a majority of labors occur at night, but of his six hundred carefully recorded cases, an equal number were born between 6 a. m. and 6 p. m., and between 6 p. m. and 6 a. m. There are, however, two acmes, one at 11 p. m., and another between 7 and 8 a. m. These two periods correspond to the times of greatest blood-pressure. He ranges himself on the side of those who believe in the non-necessity of the use of anæsthetics in natural labor.

Dr. W. H. Parish would like to hear more particularly from Dr. Montgomery in his closing remarks, respecting the safety of bromide of ethyl as an anæsthetic. A few years ago it was introduced into surgical practice in this city, and was abandoned in consequence of its dangerous character. If it is dangerous in surgery, why should it not be so also in obstetrics? Chloroform, which was at one time considered perfectly harmless in the latter class, has been found to be no safer there than in ordinary cases.

He has established for himself three rules respecting the use of anæsthetics in obstetric cases:

1. In easy, normal cases, no anæsthetic is required.

2. If the patient is nervous, excited, and uncontrollable, he gives chloroform at the incipiency of each pain, to quiet the excitability of the patient and take off the sharpness of the pain without producing unconsciousness; during the intervals between pains, the chloroform is withheld.

3. Whenever he considers that unconsciousness, full anæsthesia, is necessary, he employs ether, so as to avoid the depressing effects of chloroform. Bromide of ethyl might be used in place of chloroform, as indicated in his second rule, if shown to be equally safe; but he would not consider it proper to use it to produce complete relaxation, as required for version or the application of the forceps. Prof. Wood, in his experiments, found bromide of ethyl more dangerous than chloroform. Dr. Parish does not now use it, and he fears it would go hard with any physician before our courts if he had a fatal accident occur during its use.

Dr. Burr thought Dr. Leaman's estimate of the force required to extrude a full-term fœtus far below the mark. A child weighing seven pounds or over is pushed through a curved, horizontal, resisting passage, with irresistible power, and sometimes rapidity. A force of six pounds would not lacerate a perineum. In some cases there is but slight resistance, and the force required is small, and the pain not severe. He has seen cows moaning from the severity of their pains during parturition. In one case recently a cat was delivered of its first kitten after severe and prolonged pain, and the second kitten required three hours for its extrusion. The pains of labor are more easily alleviated than the pains of surgery by anæsthetics, and with no increase, if not a diminution, of danger.

Dr. Montgomery, in closing, said that as to danger from the use of bromide of ethyl, he thought there was no danger if a pure article was carefully used. The patient is not completely narcotized; consciousness is not lost; the administration of the drug is interrupted. The patient can co-operate, although relieved of suffering. She can answer questions. Prof. Müller is the only one who has failed in obtaining good effects, and this was probably due to impurity in the drug. Bromide of ethyl does not take the place of chloroform, nor does it produce muscular relaxation, or relaxation of the uterus as required in version. It can be pushed to complete unconsciousness, but that is not necessary, as pain will be relieved without, while the contractions of the uterus and respiratory muscles are fully as effective as without it. Labor is undoubtedly a physiological process, as much so as respiration or defecation, but it does hurt. It is the type of the most severe and agonizing suffering, and we, as physicians, are called on to relieve that suffering and prevent the waste of vital force to the extent that we can by preventing pain, long-continued pain. Bromide of ethyl is apparently entirely safe when given as I have used it. Experimental physiologists do not all agree with Prof. Wood as to the comparative danger of this and other anæsthetics.

W. H. H. Githens, *Secretary.*
2033 *Spruce street, Philadelphia.*

Editorial Department.

Periscope.

Malformations of the Heart.

Dr. Robert J. Lee thus writes in the *Lancet*, February 28, 1885:

Cases of congenital heart disease in infants and children are generally of great interest—perhaps because they are not very common, or because exact diagnosis is difficult. At one time this difficulty of diagnosis aroused an interest in my own mind; but time, observation, and reflection have altered my views, and presently I will explain to you as briefly as possible the reasons why. We will begin, as usual, with a case, a typical one, of congenital malformation of the heart, and of rather common occurrence. The boy is now in fairly good health. According to the mother's account, he has never been so well. He is between five and six years of age, is well grown and well nourished, and there is no complaint made of disturbed health except a slight cough. We have had him under observation for several months, and his mother says that he was brought to this hospital between three and four years ago, when he was about eighteen months old. We are told that he had three convulsive attacks at that time, but there does not seem to have been any reason for suspecting disease of the heart—at least, no intimation of this was given to the mother. When he came the second time, some months ago, there was then nothing very definite in the symptoms. He suffered chiefly from a disinclination for exercise or movement, from occasional swelling of the joints of the knees, feet, and hands; and he had spots of rather bluish ecthyma on different parts of the body. It was the fact of these symptoms being indefinite, and

perhaps more particularly a peculiar expression of anxiety in the face, that made us at once suspect some cardiac trouble.

If you examine the boy's heart, you will find very much the same signs to-day as when he was examined a few months ago. You can hear a loud prolonged murmur over the præcordial region, but loudest a little below and to the left of the nipple; and you can follow the murmur round the axilla to the angle of the left scapula, where it is much fainter than in front, but still very distinct; it is systolic, but more prolonged than the ordinary mitral murmur of rheumatic origin. The liver was enlarged, for its margin could be felt midway between the umbilicus and the right costal boundary line. The treatment was active and satisfactory. We relieved the circulation by leeches applied over the heart, encouraging the hemorrhage by fomentations. We ordered full doses of digitalis combined with the mixture of iron and magnesia; and, lastly, we enjoined perfect repose. As you see, the impulse of the heart is considerable, but the contractions are regular, and not very rapid, not more than 80 in the minute, and less, probably, if the boy were not a little excited. The clubbed condition of the fingers, which was noted some months ago, has disappeared; the skin is quite healthy, and there is no swelling of the joints; in fact, there is nothing particular to observe in the case except the cardiac murmur and some coarse crepitation in the lungs, due probably to a recent mild attack of bronchitis, or to slight congestion from the condition of the heart.

The case is not complete without an inquiry into the possible origin of the malformation. The first symptom of serious disturbance of the child's health was when he was ten months old, and then his breathing was at times oppressed, and there were other symptoms, although not at the time understood, yet clearly sufficient to decide the question of the congenital character of the cardiac defect. Two possible causes are given by the mother. One is that three weeks previous to the birth of the child she had a serious fright, from a fire breaking out immediately behind the house in which she was living. Her anxiety was increased from the fact that her husband kept an oil-shop, and there was imminent danger of a conflagration on their own premises. The child was born rather prematurely, in consequence, it was thought, of this accident. The other cause is somewhat different. The father was the subject of severe rheumatism, and though we cannot ascertain distinctly the cause of his death, yet we are told that it happened rather suddenly eight months after the birth of this child. The relation between the father and the boy's condition is simply this—that if the former were the subject of disease of the heart of rheumatic nature at the time of conception, we know by experience that this may be the cause of cardiac malformation in the offspring. Which of these two causes was the potent one in this case I am not prepared to say. It is true that the most common cause of this kind of malformation is maternal trouble; but in giving you the complete history and all the facts, I have indicated a possibility worthy of attention and recollection. There is one point to be noticed before we discuss the nature of the cardiac defect, and that is the convulsive attacks which occurred at the age of eighteen months. They were not ordinary convulsions, such as we are familiar with in infancy. They were rather long attacks of passive coma, without muscular spasm, and were alone sufficient to suggest some cardiac trouble. I have already pointed out, when considering the subject of convulsions in infancy, that this form of so-called convulsions presents a striking contrast with the form we are most familiar with. I think that the importance of carefully examining the heart in infants when the convulsive attacks are of comatose character was then mentioned to you.

Now we will consider what is the probable condition of the heart. Though we may not be able to diagnose for certain the exact nature of the malformation, we can arrive at conclusions exact enough for all practical purposes. In this case I think we may conclude that the defect is situated in the ventricular chambers, and that in all probability it consists of a communication between them somewhere in the interventricular septum. This is not an uncommon form of malformation. As you might imagine, the most common form is a communication between the auricles from non-closure of the foramen ovale. The auricles thus become practically one chamber, and we judge of the extent to which they are partially divided by the general condition of cyanosis. But if you expect to find a murmur present in most cardiac malformations, you will perceive on reflection that this is unreasonable. In the majority of cases the chief physical sign is rapid and increased action of the heart, and not what we have observed in the case before us. It is for this reason that we must attend more to the general evidences of disturbance of the circulation than to the stethoscopic examination, and even when there is a distinct cardiac murmur we must look rather to the former than the latter in giving a prognosis. If we take a general view of this question, we shall see that it resolves itself into an hydrostatic problem, where the point we have to determine in any particular case is not so much the locality where the two blood currents, the arterial and pulmonary, are confluent, but rather the extent to which confluence is permitted by defects in the chambers or vessels which contain the fluids.

Imagine that we have two tubes of equal size placed parallel to one another, and that water or any other fluid is flowing through them in a similar direction, and at the same pressure. If we open a communication between these tubes by a cross tube interposed at right angles, no effect is practically produced upon either current; but if the cross tube is inclined at an angle between them, there is a tendency for a current to be established along the interposing tube. You can easily perceive that the size and the direction of a communication between two currents determine to some extent how far one mingles with the other. In a closed circuit the conditions are somewhat different, and we have to consider the difference of pressure on either side of a communication between the two systems.

In the case before us, for example, there is probably a current from the left ventricle into the right during each contraction, with little if any

current in the opposite direction, at least if there is it must be during the diastole. I think that if the right side of the heart were much congested, and the fluid pressure were increased, there would be more trouble, and cyanotic symptoms would exist, as at the time when the leeches were applied. We will not consider this subject any further now, as you can pursue it at your leisure without my assistance. It only remains for me to say a few words on a line of research which I have no doubt has occurred to you as likely to aid in diagnosis—namely, the examination of the numerous specimens exhibited in most museums, or the descriptions to be obtained from various sources of different kinds of malformation. It is rather curious to find that a good many of the specimens in museums were accidentally discovered, and prove chiefly that persons may live without suspicion of anything being wrong with the heart for many years. In other respects these specimens, from having no history attached to them, are not of much value.

A classification may be made from such a collection of specimens, and certain general conclusions may be drawn; but when this is done you are not much assisted in the diagnosis of any particular case. There is one thing certain, after all, and that is that general symptoms must be relied upon rather than physical signs in deciding the probabilities of life being supported under the circumstances. A large number of cases soon terminate fatally, and by soon I mean within a few weeks or months from birth. It often happens that, provided that the greatest care is taken of an infant, it exists until an accidental exposure to cold induces some complication, such as bronchitis or pneumonia, or it becomes the subject of convulsive attacks, which soon prove fatal. In many cases the distress of the infant is very painful to see, and we need not hesitate when expressing faint hopes of life to point out how little its prolongation is to be desired where the suffering is so great. Among those who have made the subject of malformations one of special study, and to whom we are much indebted for carefully-described examples, as well as important generalizations, I must not omit to mention the name of the late Dr. Peacock. It is associated in my mind with such estimable qualities of intellectual and moral character that I mention it with deep respect and affection; and when I recommend to your attention the writings of this distinguished physician and pathologist, I do so in the conviction that you will derive great satisfaction and profit from the perusal of his works. In the Transactions of the Pathological Society some of his most important contributions will be found. In vol. xxxii., p. 35, there is a brief but valuable summary of what he described as "the most common kind of deviation from the natural conformation of the heart," the cases where the aorta communicates with both ventricles through deficiency of their system.

Seeing that we must be guided so much more by the general symptoms, in our diagnosis and prognosis, than by the physical signs in this class of cases, you will appreciate my reasons, I hope, for attaching more importance to the former than the latter; and though it is not my wish to discourage you from carefully determining physical signs, it is proper that you should not attach too much importance to them, or hope for as much assistance in diagnosis as we are accustomed to derive when dealing with other forms of cardiac disease.

Disorders of Digestion.

From the *London Med. Times*, February 7, 1885, we note the following extract from Dr. T. Lauder Brunton's lecture:

In the first lecture the lecturer had stated that the function of digestion, like health generally, might be strong or weak. A strong digestion was capable of withstanding all sorts of adverse influences, while a weak digestion remained undisturbed only under the most favorable circumstances. When any disturbances occurred in the digestive function, no matter whether it were strong or weak originally, the first step towards restoring it to health was to remove, if possible, any disturbing causes which might still be acting upon it. One of the commonest of these was imperfect mastication. This frequently arose from too short a time being allotted for a meal, or from the mind being occupied during the meal with the idea of something to be done afterwards. Persons who took their meals alone very frequently read during them. But a solitary meal should be avoided if possible, for the mere presence of a companion, and, still more, occasional conversation, acted as a pleasant stimulus, and tended to maintain the nervous activity referred to in the first lecture as an important factor in perfect digestion.

Another cause of imperfect mastication was the condition of the teeth. Sometimes the teeth and gums were tender, or one or more of the teeth might be decayed, and the discomfort or pain occasioned in them by mastication led people to bolt their food, or to masticate on the other side of the mouth, if the tenderness was limited to one side. When all the teeth were gone, the person might chew perfectly well, not only by means of artificial teeth, but also without them. The effect of thorough mastication upon the food would vary a good deal according to the nature of the food itself; and tough substances, which could with difficulty be comminuted, would be more indigestible than those which were readily broken up.

The fine subdivision of fatty food was of great importance in regard to its digestion. The more minutely the fat was subdivided, the more easily was it digested.

In regard to butcher's meat, also, there were great differences, depending both on the kind of meat used and its condition at the time of cooking; meat which was cooked before *rigor mortis* appeared, or after it had passed off, was tender; but meat cooked while *rigor mortis* still existed was sure to be tough. In the case of game, the practice of keeping the meat until it was actually commencing to decompose, was not without some danger; for not only might the products of decomposition formed in the meat, before it was cooked, be injurious, but decomposition would be rather apt to occur more readily in the intestinal canal. The gastric juice, no doubt, had a considerable antiseptic power, and so had the bile; but these

powers might be overtaxed, and eating high meat was one of the ways in which this might be done. It was, however, rather extraordinary to what an extent the consumption of decomposing food could be carried without any immediate injury, as was seen amongst the Esquimaux and Icelanders.

After referring to the importance of good cooking, and observing how unappetizing badly-cooked food was, the lecturer spoke of intemperance. The proper way to abolish drunkenness, he said, was to remove the thirst that led to it. The malnutrition which gave rise to a craving for alcohol might be a consequence of imperfect digestion, as well as of an insufficient supply of food.

But, besides cooking and mastication, a most important question had to be considered, viz., the kinds of food a person might eat. In a healthy man, the best guide, both as to quantity and quality, was the appetite. Food eaten with a relish was, as a rule, wholesome. Too great a regulation of the diet was sometimes very injurious. But the palate and the appetite alone would not serve as reliable guides to the quantity and quality of food. They had to be regulated by experience.

Dyspeptics might be regarded as a peculiar class of people, requiring fuller instructions as to diet than healthy people; and a few general directions to them were by no means out of place. Thus, they might be directed to avoid new bread, buttered toast, muffins, and pastry, all of which were difficult to disintegrate. They might be told to eat fish, or to prefer meat which had a short fibre, like mutton, chicken, or game, rather than to take those meats where the fibres were long and tough like beef.

There were some substances taken with food which were utterly indigestible. Most seeds, when whole, were indigestible. Even when broken, like the kernels of nuts or almonds, they were sparingly digestible; and the same was the case with the skins of fruits, and the harder fibres and the stalks of vegetables. Where the intestines were slow to act, such things as strawberries, raspberries, figs, nuts, prunes, and apples, might be allowed and even recommended; but where the intestines were irritable, all such things must be forbidden. Acid fruits were not only indigestible in themselves, but were apt to leave irritation behind. Some drinks were peculiarly liable to cause indigestion; for instance, sour wines, some kinds of beer, and tea. Tea was better borne by the stomach when taken with bacon or tongue, *i. e.*, with cured meat, than with fresh meat, and it was partly owing to that fact that many people could drink tea at breakfast who could not take it at any other meal. When taken two or three hours after lunch, tea brought on acidity, probably because the contents of the stomach were much more acid at that time than at any other. Amongst the poor the tea was so made as to contain a large proportion of tannin, which had an irritating effect; then, again, it was taken very hot; heat was a stimulant to the heart, but in this case, the heat would reach the heart directly through the thin diaphragm. Coffee had not such an irritating effect as tea, and cocoa was still less irritating.

Another cause of imperfect digestion was fatigue. "How often," said the lecturer, "do we find that the meal taken by a person immediately after a long railway journey disagrees with him, and either causes sickness, diarrhœa, or a bilious headache. Forty winks after dinner is by no means a bad thing, but forty winks before dinner is frequently much better." Effects, somewhat similar to those of fatigue, might be produced by depressing or disturbing mental emotions, or bodily conditions. Different emotions appear to affect specially, not only different organs, like the heart and intestinal canal, but different parts of the digestive apparatus. Thus, disgust affected the stomach, causing vomiting; fear was seen, in some of the lower animals, to affect the rectum, causing defecation; compassion affected the small intestine, producing borborygmi; worry and anxiety, although they worked upon the stomach and lessened appetite, appeared to have a very special influence upon the liver. They sometimes produced jaundice, and not unfrequently caused glycosuria; indeed, most of the cases of diabetes in middle-aged persons appeared to originate in worry and anxiety.

In treating cases of indigestion, or the consequences due to injurious mental influences, the depressing cause must be removed if possible. If this could not be done, change of air and scene, with exercise short of fatigue, and in the open air, were serviceable. Bromide of potassium, either alone or combined with bromide of ammonium, was very useful, both in lessening the sensibility of the nervous system to worry, and in procuring sleep.

Gastric tonics increased the appetite, loosened flatulence, and tended to diminish the discomfort and languor which were apt to accompany indigestion. Another class of remedies was that of carminatives, which tended to disperse flatulence. Amongst the most powerful of these were ethers and volatile oils of various kinds, charcoal, and subnitrate of bismuth, which, however, produced their effects in a totally different manner. Closely allied to carminatives, he placed stimulants, including alcohols and ethers. He was not opposed to the use of alcohol, provided always that it was used in moderation; the infirm and aged required a little wine.

Treatment might also proceed on other lines; the products of waste had to be removed; purgatives were used with this object. A regular action of the bowels was important, not only by removing the indigestible residue of food, and thus preventing fecal accumulation, but by getting rid of some injurious products which had been formed during the process of digestion. Where the bowels were habitually constipated, a most useful thing was to give a small aloetic pill before the last food of the day, dinner or supper, as the case might be. The use of such pills might be continued for very many years together, without the least impairment to the general health. The saline natural waters, or the salts obtained from them, were best given the first thing in the morning, and should be either warmed or given along with warm water.

There were two kinds of biliousness, *i. e.*, biliousness with two different conditions of biliary flow. In the one kind, the stools were clay-col-

ored, from the absence of bile; in the other, the stools were either normal or dark-colored, from excess of bile. Certain bodies belonging to the aromatic series had a very remarkable action upon the secretion of bile—some rendering it much more watery than before; others, again, making it so thick and viscid that it would no longer flow through the biliary capillaries, whence jaundice resulted. A blue pill and black draught always proved useful in such conditions.

Closely connected with cholagogues and hepatic stimulants, there was another important class of drugs, namely, alteratives. Nitrohydrochloric acid was a favorite remedy, and a very useful one in biliousness, and chloride of ammonium was much recommended. Another class of remedies was also useful in indigestion, viz., diuretics. By the frequent use of water as a diluent, either alone or with salines, the consequences of indigestion in regard to the lungs, heart, and head, might be often averted or remedied.

One of the most important methods of treatment consisted essentially in passive exercise and abundant feeding. Treatment by massage increased the nutrition, both of the voluntary muscles and of the internal organs; and under its use patients, apparently hopelessly incurable, completely recovered.

The lecturer concluded with a brief reference to a case in which this treatment had proved eminently successful.

A Somewhat Anomalous Post-Epileptic State.

Dr. James Oliver thus writes in the *London Medical Times*, April 18, 1885:

George S., a butler, aged thirty-six, was admitted into hospital. He complained of no symptoms, but said he felt very strange, as though he "had just woke up from a long sleep."

The history obtained from his friends was that for eight or nine months he had complained much of sleeplessness, otherwise seemed perfectly well, being able to continue with his duties. This sleeplessness, I may here add, was more or less marked for several weeks after his admission into hospital. In the early part of October, 1884, whilst, as was his custom, patient was waiting at table, it was noted that he was somewhat confused, and did not seem to comprehend what was said to him, as he made several mistakes. About an hour after the above change had been remarked in our patient, he had a fit, a detailed description of which, I regret to say, I have been unable to obtain—suffice it to say, that the body generally was affected by the seizure. After completely regaining consciousness, he still appeared strange, and remembered nothing of what had happened before the fit. That night patient is said to have slept well. Next morning his memory still continued very faulty, impressions speedily vanishing. He conversed well, and seemed to appreciate everything that was said to him. This incapacity, continuing four or five days, gradually improved, and in the course of two weeks patient had apparently recovered, his memory seeming as retentive as ever. In November, nearly seven weeks after the first fit, patient, without evincing, as before, a pre-epileptic change, had two fits in succession, and remained unconscious for nine hours. A mental defect was again observed, which, however, it is said, completely disappeared in about ten days.

Patient's previous health had always been good; ten years ago he had syphilis. His father had been a heavy drinker, otherwise the family history was unimportant.

Patient was not known to have had any fit since November. His condition on December 3, the date of his admission into hospital, was as follows: He is highly intelligent, and answers readily questions regarding himself, which refer to a remote date. The present is a blank. He remembers nothing regarding to-day; not even who accompanied him to the above institution, nor how he has come here. He is quite conscious of his failing, and says his "brain is foggy." The right pupil is larger than the left; both, however, are of fair size. They react readily to accommodation. The left responds well to light; the right, by itself, not at all, but in association with its fellow the response is active.

In his eagerness to prove a certain amount of mental capability, patient detailed important facts relating to his wife, family, and relations, which I shall now mention, as they reveal well his true mental state. His wife, he said, had borne two children, the names of which he gave, adding at the same time that she was again pregnant. This was so far true, but the interesting point is that she was delivered of her third child the day following that on which patient had his first fit. He also stated that all his sisters were married except one. I subsequently learned that she, too, was married, and had been for nearly five months; and not only this, but also that patient himself, as her eldest brother, had given her away in marriage. It is, therefore, evident that impressions received for a longer or shorter period before the first known fit were more or less transitory and fleeting.

For several weeks after his admission, he was quite unable to find at any time his bed in the ward. This, he said, was due to the fact that he had been so often required to shift. The truth, however, is that he slept in the same bed during his whole stay in hospital. Daily, in company with one of the attendants, patient enjoyed outdoor exercise, and frequently traversed the busy thoroughfares of London. He had previously spent the greater part of his life in the country, yet the marked change in scenery and surroundings left little or no impression, as he was utterly incapable of recalling whether he had journeyed in fields or streets. Gradually, but in a somewhat peculiar way, a change for the better was evinced, patient being able to recall the incidents towards the close of the following day.

He frequently communicated with his wife by writing, but invariably at first repeated himself several times in the course of the same letter. Eventually amendment was noted, and has steadily increased, so that now his letters are quite connected and without a flaw.

Varicosity of the Lingual Vein as a Diagnostic Sign.

Dr. G. Cecil Dickson thus writes in the *Brit. Med. Jour.*, May 2, 1885:

Much has been written on what the physician may learn from an inspection of the cavity of the mouth, but I have found no reference in works on diagnosis to the state of the lingual veins being indicative of other more important vascular changes.

Under certain conditions, and especially in elderly persons, the ranine and lingual veins are remarkably dilated and varicose; they are much enlarged, and present many bulgings, which extend in a racemose manner to the edge of the tongue. This is most easily observed by directing the patient to place the tip of his tongue against his upper incisor teeth; the main vessels will then be seen, but the branches will be better observed by its being turned somewhat to one side. In the following two cases, this condition was most marked.

D. T. had, in 1880, when aged 79, an attack of right-sided hemiplegia, with aphasia; and, since then, had been liable to frequent attacks of unconsciousness, accompanied with lividity of the face, twitching of the limbs, and great irregularity of respiration. He was stout and florid. The lingual veins were remarkably varicose, and so large as to project from the edge and be seen from the dorsum. The pulse was weak and irregular. In 1884, he had senile gangrene of the right leg, and died, six weeks afterwards, in one of his convulsive attacks.

G. M., aged 83, had an attack of aphasia in May, 1884. He recovered, but since then his face frequently became much flushed, and his speech confused. The lingual veins were much dilated and varicose, and especially on the left side. The heart's action was weak and irregular, and occasionally there was a mitral systolic murmur. In February, 1885, he died in an apoplectic attack, accompanied with right-sided hemiplegia and cerebral breathing.

In these two cases, the condition was evident, and, although there was no necessity to indicate the lesion, yet death certainly resulted from vascular changes in the encephalon, probably either thrombosis or hemorrhage; and they indicate to us, what theory would also suggest, the diseases that are liable to occur when this varicose state of the veins is present. The lingual vein being a branch of the internal jugular, will indicate the state of the blood-current in it, and so will approximate to the state of the brain-sinuses, the veins of Galen, and, indeed, the whole intracranial venous system. Distension and varicosity of the linguals will become associated with passive congestion in them, precisely the conditions in which thrombotic and hemorrhagic lesions are apt to occur.

Its cause is indicated in these cases, as in several others I have observed, by the state of the heart, which was beating feebly and irregularly, just the condition which tends to produce venous congestion.

The appearance of the capillaries and veinlets in the nose, lips, and ears, gives us a clue to the state of the circulation of the head; but the lingual vein, from its large size, is specially manifest, while, from being covered only by mucous membrane, it is clearly seen—and, moreover, by being thus so fully supported externally, it will most readily yield and bulge from internal causes. It is difficult to see what local causes in the mouth could induce it, and it is thus contrasted with the saphena vein, varicosity of which more usually arises from some pressure either in the limb or in the abdomen, and, also, the latter, belonging to the inferior canal-system of veins, will not indicate the cerebral state as the lingual.

Just as varicosity of the hemorrhoidal veins at the other end of the alimentary tract points out the state of the portal venous system, so a varicose condition of the lingual becomes indicative of a dilated state of the whole jugular system.

Like other diagnostic signs, there is a wide limit, varying at each age, within which this may occur in health. It is only an exaggerated varicosity that would seem to be prognostic. It does not always accompany the arcus senilis; that suggests rather arterial anæmia than venous hyperæmia.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Dr. G. Beck's *Therapeutischer Almanach* has now reached its twelfth annual number, and appears with its usual amount of condensed notes on the progress of therapeutics during the year. It is always well compiled, but is too much condensed for most readers. Published at Bern by Schmid, Frank & Co.

——Dr. T. G. Comstock, of St. Louis, in a reprint before us, advocates the use of alcoholic stimulants and cold in scarlet fever as very valuable auxiliaries to the treatment of that disease.

——Two articles by Dr. James B. Hunter, of New York city, will be of interest to gynecologists. One is entitled "Ovariotomy," the other "Fifty Cases of Abdominal Section." They are reprinted from the New York *Medical Journal*.

——A positive step in advance in the pathology of endocarditis is made in the Gulstonian lectures of the present year, which were delivered by Prof. William Osler, of the University of Pennsylvania. His subject was "Malignant Endocarditis," and a very convenient reprint of his lectures, taken from the *Brit. Med. Jour.*, has appeared. Those who would like to learn the results of the latest studies on this topic will do well to read it.

——We note with pleasure the appearance of two more of the suggestive studies in mental pathology from the pen of Dr. C. H. Hughes, of St. Louis. Their themes are the neuropathic conditions and treatment of cancer, and "A Case of Psycho-sensory Insanity."

——All parents should be interested in a lecture by Dr. Keating, published at Holmesburg, Pa., by Dr. W. H. Morrison, price twenty-five

cents, with the taking title—"How to Feed the Baby." It is very practical and useful, and deserves to be widely read.

BOOK NOTICES.

Clinical Studies on Diseases of the Eye, Including those of the Conjunctiva, Cornea, Sclerotic, Iris, and Ciliary Body, by Dr. F. Ritter von Arlt, etc. Translated by Lyman Ware, M. D., etc. Cloth, 8vo. Illustrated, pp. 385. Price, $2.50. Philadelphia: P. Blakiston, Son & Co., 1885.

For nearly forty years Prof. Arlt, of Vienna, has ranked among Germany's most successful teachers in diseases of the eyes. Both as a writer and as a practitioner, he has achieved a fame as extensive as the bounds of the civilized world. The result of this long practice is presented in the work before us. As the translator observes, it is the essence of an experience which reaches over half a century.

Beginning with the inflammatory affections of the conjunctiva, he passes to those which are non-inflammatory, and then to diseases of the cornea, of the sclerotic and the iris. His style is condensed but clear, and his pages contain a vast amount of information couched in such language that it will be equally instructive to the general practitioner and the specialist.

The translation is carefully and well made, and the publishers have taken pains to present the volume in a highly attractive style of manufacture.

Transactions of the New York State Medical Association for the year 1884. Vol. I. Edited for the Association by Austin Flint, jr., M. D. 8vo., pp. 653. New York: D. Appleton & Co.

It will be understood that there are two State Medical Associations in New York, the one accepting the "code," the other rejecting it. The present volume prints the code as its rule of action. It may therefore be considered the "regular" society, while the other was and is a vehicle for specialists and others who wish to consult with all genera of so-called doctors.

The volume which is offered as number one is a most promising guarantee for the future usefulness of the Association. It has a large list of papers, nearly all of them of the first order of merit, and generally the result of original research. They are fifty in number, nearly equally distributed over the fields of surgery, medicine, and obstetrics. The appearance of the volume is much superior to that generally seen in society transactions, and in this respect corresponds to its contents. The careful type-reading and judicious arrangement of the material, show that the editor has done his part of the work with scrupulous fidelity. Certainly, if the Association continues to issue volumes of equal merit, the profession will have reason to be glad of the circumstances which brought it into existence.

A Treatise on Abdominal Palpation as Applied to Obstetrics, and Version by External Manipulations. By A. Pinard, etc. Translated by L. E. Neale, M. D. 8vo., pp. 101. New York, J. H. Vail & Co.

The translator justly remarks that there is a deficiency of information in accessible American writings with reference to the practical applications of the abdominal touch. It is an extremely important procedure in obstetrics, and we are inclined to believe that it is by no means appreciated at its proper value among the mass of American obstetricians. This convenient short treatise will introduce it in a commodious manner. It is plain, well illustrated, and gives the needed details in a highly satisfactory style. We recommend it to our readers who are engaged in the practice of midwifery.

Annual Report of the Secretary of the Navy for the Year 1884. Vol. II. Washington, 1884.

The fullness and accuracy of the reports contained in this volume speak well for the excellent training of the medical staff, as indeed is universally recognized by all competent judges.

Besides the general sick reports from the various vessels, there are a great many interesting details about the sanitary and climatic character of the ports visited by our ships during the year. Their principal diseases are noted, their hygienic surroundings, and the condition of medical men and matters. We find that the results of the English contagious diseases acts with reference to prostitution are usually very favorable wherever they have been introduced. Women as physicians are destined to achieve great success in Asia. The co-education of the sexes in the Indian medical college has turned out very well; and many more instructive details may be discovered in these official reports.

What to Do in Cases of Poisoning. By William Murrell, M. D. 12mo., pp. 212. London, H. K. Lewis, 136 Gower street. 1884.

This little manual has reached its fourth edition, which speaks well for the care exercised in its preparation. Both in the arrangement of the material, and in typographical display, it is successfully aimed to convey all requisite information in the quickest and easiest manner possible.

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FORCED PERSPIRATION AS A THERAPEUTICAL MEASURE.

Dr. Wachsmith, of Berlin, in a series of articles in the *Allgem. Med. Centr. Zeit.*, March 28, 1885, highly recommends the forced withdrawal of fluids from the circulation of patients suffering from infectious diseases. He employs for this purpose profuse perspiration artificially induced, and believes that the blood becomes more concentrated in salts, and is thus in a condition which is unfavorable to the multiplication of pathogenic germs.

He has made use of this method in diphtheria, and to judge from his reports of cases, he has been very successful. Of special interest, however, are some cases of trichinosis which he mentions, and which seem to indicate certain procedures by which the infection of the whole system, after trichinous meat has been eaten, may possibly be avoided. The cases are as follows:

Five years ago, in Fruchtstrasse, in Berlin, several persons became sick from the use of pork. The cases were at that time shown to Dr. Eulenberg. Four of them became severely ill; in two a colony of trichinæ developed itself in the muscles of mastication, gave there rise to abscess formation, and thus ended the disease, the parasites not entering the general circulation. One woman, who, after swallowing the diseased pork, had complained of a peculiar sickly feeling in her stomach, at once sent for a quarter of a pound of salt-sardelles, and scarcely waiting for the removal of most of the salt by repeated washings, ate the whole quantity, and never became affected with trichinosis. Another woman suffered from large swellings on both arms and from intense pains—the trichinæ having evidently migrated to those parts. W. employed, locally, mercurial ointment, and internally large doses of muriate of ammonia, so that daily, several times, the most profuse perspiration set in. By the fifth day she had completely recovered.

Of somewhat similar importance is the following case, where forced sweating was also employed, and where instead of the salt-sardelles muriatic acid seems to have acted as a prophylactic.

In Zechin, in Prussia, the members of a family all sat down to a festival dinner in honor of the christening of the youngest child. They partook of fresh meat and sausage, derived from a hog killed the same morning. All became sick. Five days after the sumptuous meal, one of them, a man by the name of Abel, sought Dr. W.'s advice. He was suffering from pains and swellings of both arms. On W.'s inquiry whether he had eaten pork, A. denied having done so, but the next day he returned and informed the doctor that he had meanwhile heard that all his relatives that had been present at the christening had become sick with trichinosis, and that he now remembered his having eaten pork and sausage partly made of the same. As A. besides complained of great want of appetite, W. ordered him to take diluted muriatic acid, and advised him to enter the hospital. About a year later A. came back to Dr. W., this time to consult him about some other disease. He then told W. that he at that time had not entered the hospital, but simply contined the medicine, and taken something to make him sweat, and that by the third day he had totally recovered. One of his brothers had been taken sick the same day as he, and had suffered from the same symptoms. He too took the muriatic acid, and profusely perspired, the result being even more rapid than in A.'s case, all the morbid phenomena disappearing by the second day.

In the beginning of this century, forced sweating was a favorite therapeutical procedure with physicians, and it may be well occasionally to try it in cases of this kind. When the trichinous meat is still in the stomach, muriatic acid may well serve as an antidote by killing the trichinæ. It too deserves a trial.

THE BRAIN AFFECTION COMPLICATING PNEUMONIA.

Cerebral symptoms are often met with in pneumonia; most frequently, however, in children. It can scarcely be doubted that the so-called croupous, or acute, or lobar pneumonia is an infectious disease; even those authors who do not yet recognize the specific coccus as the pathogenic element of this febrile disease, acknowledge the infectious character of the latter. This subject has frequently been discussed in this journal, and is only mentioned here. The moment we adopt the view of modern bacteriologists, the explanation of the cerebral symptoms becomes easy. We can well imagine how but a few of the pathogenic pneumococci may give rise to only a mild disturbance of the mind, and it is thus that we have to interpret the slight confusion and the occasional abberration of the mind so often observed in acute pneumonia. Often, however, the group of symptoms belonging to the lung affection proper, almost disappear in comparison with the cerebral complication, *i. e.*, the symptoms of the latter are so prominent that those of the lung disease are apt to be lost sight of. This is especially the case in children from the very beginning of the infectious malady, the fact being well known that physicians not well acquainted with the picture which this disease so frequently, we might say so generally, assumes in childhood, often diagnose a cerebral disease, while, indeed, acute pneumonia is present. In adults, the cerebral complication usually does not appear at the outset of the pneumonia, but shows itself later on; it then is commonly described as œdema of the brain. But that this œdema is often based upon an acute inflammatory process, and that the ravages in the brain in such a case may be very extensive is less widely known.

In this respect an article is of interest, which Dr. H. Barth has recently published in the *Union Méd.*, 1885, No. 179. He has observed a series of cases of the kind described, and as a result of his investigation he has arrived at the following conclusions:

In adults meningitis, as a complication of pneumonia, but seldom appears in the beginning of the disease, but usually from the fourth to the sixth day, sometimes still later, and even after the fever has ceased; it is often overlooked or wrongly interpreted. Of importance is the peculiar influence which this meningitis has upon the bodily heat of persons suffering from pneumonia: while the fever still is at its height, it often sud-

denly declines one or more degrees, but if the febrile period has already ceased the temperature rapidly ascends up to 103°–105°. Headache, delirium, a certain amount of contracture of the neck-muscles, lowering and irregularity of the radial pulse, are some of the usual symptoms indicating the cerebral complication; but these may be totally absent, and then the brain affection is characterized by somnolence and dullness of the mind, so that it almost becomes an impossibility to recognize the cerebral malady. Soon coma develops itself, and death sets in from one-half to four days after the onset of the brain-complication.

At the post-mortem one is surprised at the great extent of morbid lesion which, although usually having as its seat the convexity of the brain, mostly also spreads over the base, and frequently over the spinal cord.

This meningitis complicating pneumonia varies greatly in its intensity and frequency in different epidemics and in different localities; it is mainly observed in debilitated individuals, and is, without almost a single exception, a fatal disease. B. also believes that the same coccus that produces pneumonia is responsible for the cerebral inflammation.

SUMMER HEALTH RESORTS.

With the arrival of summer we observe in the newspapers, and receive by mail the usual number of announcements of summer health resorts. They contain the customary quantity of indiscriminate self-laudations, and hold out the customary promises of benefit in a large variety of complaints.

The majority of persons who are led by these roseate statements to pass some time at these resorts will came away sadder and wiser people. They will discover that the beds are cheap, the table either coarse, or, what is worse, offering a very inferior imitation of French cookery, the attendance will be scanty, and about the only element that will go beyond their legitimate expectations will be the size of the bill.

This is so constantly the case in this country, that it becomes a rare exception to find a summer resort which one thinks well enough of to visit twice. The advertisements are often mendacious, and always exaggerated.

The reasons are obvious. We are not yet far enough along in this country for our people to appreciate the value of competent and disinterested scientific testimony as to the value to health of certain localities; so the whole matter is left to the greed of innkeepers, who want to clear as much money in three months as their business could legitimately give them in a year.

Even physicians, residents in one of these localities, are apt to be biased by their interests or prejudices. What is needed is an official investigation of the advantages offered by different localities in different diseases. This belongs to the duties of a State Board of Health, and some of these boards have made a beginning in this direction. A great deal, however, remains to be accomplished, and until it is done both physicians and patients will have to continue at the mercy of the interested hotel-keeper.

INOCULATION FOR CHOLERA AND YELLOW FEVER.

News comes from Vera Cruz that the Government has been so well satisfied with the results of inoculation for yellow fever that it has ordered all the garrison to be thus protected. The operation is claimed to confer immunity for five years; but this must be a theoretical period only.

Meanwhile, the latest advices from Spain seem still to be favorable to the effects of cholera inoculation. A correspondent of a New York daily states that the latest report from Alcira shows that during the first half of May there were seventy-one "suspicious cases" in a population of 16,000, and that of these thirty died, fifteen recovered, and twenty-six remain ill. Five thousand four hundred persons have been inoculated, and of these but seven have had choleraic attacks; these seven persons were, moreover, taken ill within thirteen days of their inoculation, or before the virus had full time to act its part, and

no deaths of inoculated patients have yet occurred. The report shows one cholera case for each 165 uninoculated persons, and but one case to each 770 inoculated persons. Moreover, a death-rate of one in 353 among the former, as against no deaths among the latter. This showing is, however, more than fair to Dr. Ferran, as it supposes all the inoculations made on May 1, which is not the case, and leaves out of account the fact that the most cautious and well-to-do are most apt to avail themselves of such precautions, while the death-rate is largest among the opposite class.

The Minister of the Interior has announced that a commission of eminent physicians would soon be appointed by the Government to investigate Dr. Ferran's discoveries and the preventive value of his system of inoculation. Till this report can be prepared, granting State money to Dr. Ferran seemed unadvisable. The Government would, however, gladly defray Dr. Ferran's expenses in India if he chose to study the true cholera there. Many Spanish physicians express distrust of Dr. Ferran's discovery. They call him an unbalanced enthusiast, but the weight of public opinion, as shown by the newspapers, inclines to faith in his inoculations.

Notes and Comments.

Some Peculiarities of Measles.

During a discussion on a recent epidemic of measles, which we find recorded in the *Cincinnati Lancet and Clinic*, February 28, 1885, the following points were made:

Dr. Eichberg remarked that recently he had attended a child with a second attack of measles, occurring within a month after the first. The first attack was unusually severe; there was considerable cerebral difficulty, and at one time the temperature was 104.5°, so that the case was somewhat dangerous; but the boy got well and returned to school. In a few days he was again seized with all the manifestations of measles, the eruption, however, disappearing altogether within two days. The speaker was inclined to attribute the second attack to infection contracted at school.

A peculiarity of measles this season is their tendency to be followed by pustular eruptions and boils in various parts of the body. Another feature worthy of attention is the large proportion of adults who at present became affected with measles. During the past week seven adults suffering from this disease have been admitted to the hospital, of which number one has died. There is also a great tendency to pulmonary complications after the fever and eruption have disappeared. In the speaker's experience diarrhœa had been most severe in the second week.

Dr. Stanton said that the second attack of measles may be classed under two heads—those in which the disease returns very soon, which is in reality a relapse, some of the poison remaining in the system after the primary attack; and those in which the return is after a long interval, and due to a new infection, as in the case mentioned by the previous speaker.

Dr. Taylor said that in the present epidemic diarrhœa is an unusually frequent complication. Another point of interest is that the prodromes are remarkably protracted; brain symptoms, somnolence, etc., continue a long time before the appearance of the eruption.

A third noteworthy peculiarity is the singular malignancy which prevails this year. The fatality is very great, and the laryngeal complications are unusual. A larger number of sequelæ than usual characterizes measles this winter; otitis is very common, though in the speaker's experience conjunctival complications are not so frequent as is usually the case; cough also is rather trivial.

The speaker agrees with other members that the frequency of relapse this year is remarkable.

Dr. Davy believed that measles is the most self-protecting disease which prevails, more so than small-pox. It is a very easy matter to call any simple eruptive disease measles, although it may be something very different. Under such circumstances a large number of so-called relapses may occur. During the present epidemic, however, the speaker has had a number of cases which were undoubtedly recurrences of the disease. The various peculiarities in the clinical history of measles this year, as described by previous speakers, the doctor has also observed.

Dr. Stanton remarked that measles are generally regarded as self-protecting; recurrences are most frequent during epidemics. In the army the speaker's experience was somewhat different from that of Dr. McReynolds, the attacks being almost always the first that the man had had. Abscesses occur oftenest in epidemics of the vari-

ous exanthematous diseases. The speaker has had one case, that of a physician of this city, in which measles was followed by dysentery, and, in fact, by extensive ulceration throughout the whole intestinal tract. The hemorrhages were excessive, so that upon two or three occasions the patient almost bled to death.

Dr. Groesbeck said that a matter of interest on this subject had been brought out by the discussion last night in the Academy, namely, that those soldiers who had measles while in the army came principally from the rural districts; and it was inferred from this that these were usually first attacks, since the men coming from city districts where epidemics of measles are common, had, in all probability, had the disease already.

Dr. Heighway, referring to his army experience in Mexico, in 1846, said that soldiers from the rural districts suffered most. At one time the army was encamped upon a ridge along the Rio Grande, the soldiers coming from various States, Illinois, Georgia, Indiana, Missouri, and others, and with them all, the disease was most prevalent and fatal among those who came from the country districts. The only way to account for this was the assumption that they had lived in thinly-populated districts, and thus escaped the contagion of epidemics in childhood. The only medical treatment the soldiers received was syrup of ipecacuanha, which was proved to be a most successful remedy.

Electrolysis in Stricture of the Urethra.

We have frequently had occasion to refer to the use of electrolysis in the treatment of stricture of the urethra. In the hands of some it has seemed to prove very beneficial, and converts to its merits are being constantly made. Dr. Robert Newman publishes a paper on this subject in the *Journal American Medical Association*, April 25, 1885, in which, after reporting one hundred cases, he says that these and many other reports of cases speak for themselves, so that at the present time 1,000 could easily be collected, and that the most fastidious medical skeptic ought to be convinced by this report of one hundred cases cured without any relapse during three to eleven years' careful observation. By such unique good results the method of electrolysis in the treatment of stricture of the urethra is fully tried and established, and every day brings new converts and makes new friends.

He thus formulates the details of treatment:

1. Begin the use of electrolysis carefully; do not cauterize, only absorb; in many cases the current of six cells will suffice.

2. Regulate the power and current of electricity according to the susceptibility of the patient.

3. Repeat séances in intervals not too frequent in succession.

4. Do not grease the bougie with substances which are non-conductors, and would insulate.

5. Wet your electrode sponges with hot water; keep the plates in the battery fluid only during the operation.

6. Never use force with your bougie; never cause hemorrhage.

7. Do not operate while the urethra is in an acute or even sub-acute inflammatory condition, or when it is too painful.

8. Use your battery fluid weak.

9. Never use two bougies in succession with electrolysis during one séance.

10. Practice at first only one method by absorption. "*Weak currents; long intervals.*"

Vomiting of Pregnancy.

Nausea and vomiting are very common symptoms belonging to the pregnant state, so common that women will frequently recognize the condition in which they are from these gastric phenomena, and they often do so before the cessation of the menses has given them a more reliable proof of their being pregnant. These gastric disturbances generally appear only during the earlier months, and, as a rule, cease as soon as quickening sets in. These symptoms, also, mostly are more annoying than dangerous, and usually easily controlled. And yet every physician occasionally meets with cases where the vomiting is not only incessant, but also unamenable to treatment, and, at times, cases happen where life is threatened. This is so well recognized that the law in Prussia permits, under such circumstances, the physician to induce premature labor.

Probably every remedy of which the least effect could be expected has been tried in grave cases of this kind. For a while cauterization of the external os of the uterus was in fashion, and of late, stretching of the neck has been highly recommended. Dr. Adrian Schückling (*Allg. Med. Centr. Zeit.*, March 28, 1885,) has tried the latter operation in a series of cases, but found it invariably useless. Instead of it, he recommends the injection of carbonic acid, especially of those mineral waters which contain besides small quantities of iron a great amount of carbonic acid,

into the rectum. In the article mentioned, S. reports a number of cases in which every known remedy—the operations included—had been tried in vain, and where life was really threatened, and where ultimately the injection of carbonic acid, in the form described, established a complete and permanent cure. As the presence of iron in these mineral waters does not seem to be essential, Apollinaris water may be the best to use in these cases.

Hereditary Chorea.

Dr. Clarence King contributes an interesting article on this subject to the *N. Y. Med. Jour.*, April 25, 1885, wherein he thus sums up the herapeutic considerations:

"The therapeutic indications would be simple, but by no means unimportant. Rest at night should be secured by means of opiates. The bowels should be kept regular by mild laxatives. If the patient is anæmic, tonics should be administered—quinine and iron. Strychnine or arsenic as a nerve-tonic should be given, continued for a long time, and, in a certain proportion of cases, improvement would undoubtedly follow. But he would lay particular stress on the hygiene and surroundings of the patient. He should be in a healthy locality, have plenty of wholesome diet and at regular hours, take moderate exercise in the open air daily, and at night have at least eight hours' undisturbed sleep.

"But after the disease has become fully developed, there is little or nothing we can do that will give any benefit to the patient. The free use of tonics will probably give as much benefit as anything. Electricity has been employed as a spinal tonic, but without favorable results. In the last stage we should nourish the patient as best we can, perhaps giving cod-liver oil, and keep him as quiet as possible, treating on general principles other indications as they arise."

Foreign Bodies in a Hernia.

A sixty-year-old man came to Dr. S. Storker (*Corresp. f. Sch. Aertzl*, 1885, No. 17), with all the symptoms of strangulated hernia. Palpation alone revealed the fact that substances of an unusual kind were embedded in the inguinal hernia, which was of the size of a peach. The hernia was opened, and found to be completely filled with frog thighs, the patient patient having eaten the day before a whole plateful of this uncommon dish. The suture applied did not endure, although disinfected carbolized silk had been employed, and an intestinal fistula resulted, which healed after an existence of three months. In the report quoted, S. cites a number of similar instances. In nearly all cases mentioned in medical literature of impacted foreign bodies of bony and irregular structure, where an opening of the intestine had become necessary, an intestinal fistula of some months' duration, though final cure, seems to have been the invariable result.

Special Report.

OPHTHALMOLOGY.—NO. XVIII.

BY CHAS. S. TURNBULL, M. D.,
Of Philadelphia.

The Transactions of the American Ophthalmological Society, which held its twentieth annual meeting at the Catskills in the summer of 1884, is a volume containing an immense amount of valuable material to most medical men; and as the number of those who are so fortunate as to see the report of these transactions must necessarily be limited, we have abstracted much that is of practical worth, and where we have not quoted more fully can only regret that want of space prevented.

The President of the Society is Dr. Wm. F. Norris, of Philadelphia, and it was decided to hold the next meeting at New London, in July of 1885. The Society now numbers eighty-seven members, from all parts of the United States, and of this number thirty-one were present, and the interest evinced in ophthalmology in general was proven by the variety of valuable papers presented.

The first was on *Iridectomy in Chronic Iritis*, and was contributed by Hasket Derby, M. D., of Boston, and our only regret is that we are not able to quote in full this interesting and instructive paper. He says: "Cases of recurrent iritis are familiar to us all. The patients are many of them young, with the world before them; handicapped as they enter upon the race of life with a painful and dangerous disease that may befall them at any moment, and is certain for several weeks to interrupt all their pursuits. Treatment is simple and efficacious where it may be had. But the question is, as to whether prevention is possible. Does iridectomy cure or ward off the disease? Instances of its performance in these circumstances are so rare, and the subject is of such importance, that I do not hesitate to present to the Society the notes of even a single case related, if not actually belonging to this family, carefully followed for the past four years and

furnishing an instructive commentary on the question just raised.

"November 13, 1880, there came to consult me Miss D., about sixty years of age, and in perfect health. She had never experienced the slightest touch of rheumatism, and at the time of, as well as for some time preceding her visit to me, had been as well as usual. She now complained of a 'cold' in the left eye, which she said had lasted three weeks, unattended by pain, and characterized mainly by redness and slight dimness of vision. I found much ciliary injection, and numerous posterior synechiæ in this eye. No treatment of any kind had been resorted to. Under atropine, a shade, and rest of the eyes, the synechiæ were broken up, the redness rapidly disappeared, and the eye was as well as ever in five days.

To make a long story short, she had, between January 1st and June 3d, 1881, nineteen attacks in the right eye and fourteen in the left. They would last from one or two days to a week each, be attended by comparatively slight pain or lachrymation, but were always characterized by a tendency to the formation of numerous synechiæ, readily yielding to a mydriatic. These attacks ordinarily alternated, though sometimes three or four would occur in the same eye, in rapid succession. For their treatment the various mydriatics were at different times employed, tonics, alteratives, and mercurials given alternately, and on one or two occasions a course of pilocarpin injections was gone through with. Nothing whatever made the slightest difference in the character or frequency of the attacks, which yielded more or less readily to mydriatics, and manifested a tendency to return as the effect of the mydriatic began to pass away.

"June 3, 1881, I ordered atropine to be applied daily through the mouth. This was kept up till July 6th, each eye the while remaining absolutely free from inflammation. Eight days after the atropine was discontinued, a severe attack came on in the right eye. It was now resolved to keep each pupil dilated for a considerable length of time, in the hope of breaking up the tendency to inflammation. Atropine was accordingly ordered three times a week, in each eye, the patient following me to Mt. Desert, both for the change of air, and that her case might remain under observation during my absence from the city. For two months this plan was carried out, the eyes remaining perfectly free from redness, except on one or two occasions when the atropine was accidentally omitted.

"In February, 1882, I discovered a slight but distinct excavation, peripheric and partial, of the left optic entrance. There was neither arterial pulse, increased tension, or limitation of the field. Atropine was in consequence no longer employed regularly, but reserved for emergencies. The attacks continued as before—on March 8th, the left eye proving unusually obstinate, and leaving several synechiæ, both above and below, that resisted mydriatics.

"I lost sight of her now until May 3d, when she reappeared, informing me that for several weeks she had been in New York and treated by Dr. Knapp. He wrote me that the attacks had continued, but been mild and transient. Eserine and homatropine had been alternately used, on account of the peculiar condition of the left eye. Tension continued nearly or quite normal, and the excavation did not increase. Under these circumstances he did not think an iridectomy indicated, and gave no encouraging prognosis as to the future of this case of recurrent iritis, as he clearly considered it.

"Soon after, Miss D., having been under observation eighteen months, sailed for Europe, carrying from me a letter to Professor Horner, in Zurich. He examined the case, agreed with Dr. Knapp and myself as to the treatment, as well as to the undesirability of an iridectomy, gave an encouraging prognosis, and dismissed the patient. Not long afterwards she found her supply of atropine exhausted, and being unable in the place where she then was to obtain a fresh solution without a prescription from a local surgeon, she consulted one. She had at the time no intention of having her eyes examined, as no change had occurred, the attacks remaining mild and transient, and vision not having fallen off perceptibly. But the gentleman she went to made an examination, informed her that she had glaucoma in the left eye, that blindness was imminent unless iridectomy was promptly performed, and pressed the operation. Surprised, and, in fact, overwhelmed by this intelligence, she consented. Four days later, glaucoma was diagnosed in the right eye, and an iridectomy done on that. Shortly afterwards a second operation was done on the left.

"The left eye was operated on October 1, the right October 4, 1882. The subsequent history of the case, as given by the patient herself, is as follows: For three months the inflammations continued, exactly as before, in each eye, an attack coming on every week. After that they grew more infrequent, and were accompanied by less

redness. Gradually, all defined attacks ceased, though slight redness would from time to time occur.

"When I saw her, in February, 1884, there had been no treatment used for fourteen months. Each eye presented a free iridectomy, done upwards. The synechiæ remained as before. Vision was from one-tenth to two-tenths in each eye. Tension, normal. Each vitreous slightly hazy, some large floating opacities in the left. Each nerve presented a wide-spread, shallow physiological excavation.

"The patient complained bitterly of intolerance of light, and of inability to accommodate herself to sudden changes of illumination; in short, of all the usual disturbing effects of an iridectomy.

"Here, then, we have a case of chronic recurrent iritis, extending over two years, and persistent to an unusual degree. We are, accidentally, enabled to study the effect of an iridectomy on the progress of the disease, which, at the time, was evidently growing less severe. And while, on the one hand, we cannot but be astonished at the tolerance exhibited by such an iris toward such a serious operation, it must, on the other, be admitted that there was no immediate effect on the disease, and that in all probability the ultimate cessation of the symptoms was due to the fact that the malady had worn itself out, and was self- rather than artificially-limited. In view of all the circumstances, I am unable to persuade myself that the iridectomy did any good here, or would be justified in another similar case."

In the discussion which followed the reading of this paper, the remarks of Dr. H. Knapp are important. He said:

"Iridectomy in chronic iritis has been frequently made, and often resulted badly. There is not the slightest doubt that in many cases iritis will relapse for years, but finally get well. I accidentally saw a young lady in this hotel who for five years had many attacks of iritis. She has now perfectly recovered. In some of these cases of recurrent iritis iridectomy is performed, nevertheless the attacks continue for years. Iridectomy is a remedy, but not a sure one. From the experience which I have had I restrict it to those cases in which, besides the iritis and adhesions, there is a tendency to cyclitis and glaucoma. I think that under such conditions iridectomy is indicated beyond dispute. As long as the iritis remains simple, with a limited number of adhesions, and a part of the pupil moves freely, I do not, as a rule, perform iridectomy. I do think that iridectomy is a remedy which, if it does not always prevent the attacks, mostly diminishes their frequency, and, on the whole, has a good effect. A few years ago the same question came up at the Heidelberg Congress, where some of the more experienced oculists took the ground that it favored an extension of the process, and they were much averse to it. The decision whether or not iridectomy should be performed depends greatly upon the course and the gravity of the disease."

(*To be continued.*)

CORRESPONDENCE.

The Treatment of Diphtheria.

EDS. MED. AND SURG. REPORTER:—

I see in the REPORTER of April 25, that Dr. Cortes adds his testimony as regards efficacy of the abortive treatment of diphtheria by the use of calomel. He has recently treated five cases, including his own, with only one death.

I presume that there are but few persons living who have treated more cases of diphtheria than I have, from 1860 to 1865, in and about Trenton, Tuscarawas county, Ohio. Nearly every member of every family in and within three or four miles of town had it some time during the time above mentioned. I think I must have treated somewhere near a thousand cases. My treatment was something like the following: I first gave a full dose of calomel, and followed it with a full dose of castor oil in two or three hours. After that had operated freely, I gave as much quinine as would break an ordinary case of ague, as everybody there was full of malaria. After the first day I reduced the quinine to about one-third, divided in three doses, and gave one before every meal, or three times a day, and at the same time gave muriated tr. of iron ten to fifteen drops every four hours, in water, and used also as gargle a solution of chlorate of potash. I continued the tr. of iron and quinine two or three weeks.

Local treatment I considered very important. In cases with deposition of an ash color, and surrounded with swollen tonsils of a dark erysipelatous character, I applied with a camel's hair pencil a saturated solution of nitrate of silver (60 grs. to the ʒ) to the deposition and surrounding surface once in twenty-four hours. In milder cases I used a solution of tannin, or alum, or some other astringent application with brush. In some severe cases nothing seemed to do as well as the salt, pepper, and vinegar gargle, recommended in the United States Dispensatory.

Treated as above stated, there were no afterclaps, such as paralysis, and no dropping dead. But in some cases, after the throat affection was cured, the patient would mope around a few weeks without an appetite, and apparently starve to death. In cases in which the larynx is invaded with all the symptoms of croup, I lately used and depended on the muriated tincture of iron given in milk with an unsparing hand.

To a child three or four years old I gave two

to three drops of tr. fer. mur. in a dessertspoonful of sweet milk every five minutes during waking hours, and every fifteen minutes during sleeping hours. In less than twenty-four hours the pseudo-membrane began to break down and come away in shreds.

Of the only three cases that I treated with tr. of iron and milk, as above stated, and succeeded in breaking up the false membrane, and saving the patient from dying, two made a good recovery, and the other one died in about three weeks from inanition.* To a patient ten years old I gave five drops every five minutes in a tablespoonful of milk.

The treatment of diphtheritic croup with tr. of iron and milk is not original with me, as I derived it from the MEDICAL AND SURGICAL REPORTER, I think, some twenty years since, but failed or neglected to try it at first. I believe it will succeed four out of five times in removing the false membrane in from twenty-four to forty-eight hours. I only tried it in three cases, and succeeded in all in less than thirty-six hours in breaking down the false membrane completely. All who tried the mercurial treatment soon abandoned it as useless if not injurious.

Taking all the cases as they appeared, we lost, perhaps, one out of fifteen or twenty. We fully satisfied ourselves that it was not contagious. Our family all had it, excepting myself, but they took it several months apart. I was in the habit of inhaling their breath, as there is a peculiar odor in a diphtheritic breath. In one instance, when I was cauterizing a throat, the patient coughed, and the false membrane flew in between my lips, but I failed to get the disease. Although it may be contagious in some epidemics, it certainly was not so then and there.

E. A. OPPELT, M. D.

Cannelburg, Ind., May, 1885.

Castration by a Hog.

EDS. MED. AND SURG. REPORTER:—

On the 6th of last month I was called to George, twelve years old, the son of Mr. F. The lad had been injured by a large female hog. I saw the little patient about three hours after the reception of the injury, and besides being badly bruised about the legs, he had his right testicle torn out by the hog's tooth. The wound in the scrotum and tunica vaginalis was a jagged one an inch long. The testicle was hanging two inches below the scrotum, and was dry and swollen, with its cord lacerated and congested. The boy's father insisted upon my dividing the cord entirely, and completing the castration, but I decided to return the testicle. By the aid of chloroform, I succeeded in returning the cord and testicle without any trouble, and closed the wound with two sutures. I ordered iced cloths to be applied every hour. At the end of 48 hours considerable swelling ensued, and to subdue this I used tobacco poultices, applying them every two hours. The swelling began to subside, and at the end of seven days after the accident the testicle was reduced to its normal size, and the boy was allowed to resume his play. The wound healed by the second intention, and without pain. The tobacco poultice is the best I have ever tried for acute or traumatic orchitis. It is prepared by sprinkling the surface of the ordinary flaxseed meal poultice with smoking tobacco.

CHARLES S. HEFLIN, M. D.

Bealeton, Va., April, 1885.

The Early Treatment of Typhoid Fever.

EDS. MED. AND SURG. REPORTER:—

"The Early Treatment of Typhoid Fever," is the title of an article by George M. Ramsey in the REPORTER for April 25th last, and if the results obtained by him in this specific fever are due to the treatment given, it deserves universal adoption. I do not believe I have ever seen a case of typhoid fever aborted by any treatment, and I do think the patient is subjected to very great risk of the "priest" in the end, if very active medication is resorted to by his physician. Typhoid fever is a specific disease, according to Budd, derived only from a pre-existing case of the disease, while Murchison says that while usually produced in a person suffering from the disease, the *poison* may be generated *anew* by decomposing animal and vegetable matter.

There is a period of incubation, the length not known, but in most cases lasting fifteen or twenty days. In this time the appetite fails, the tongue coats up, there is depression and muscular feebleness, but the case still keeps up. Now sets in headache, chilly sensations, increasing feebleness, and now generally the doctor is called. We now have fever, mental hebetude, epistaxis, anorexia, constipation or diarrhœa, an increased cardiac action, pain in the back and limbs.

Now, I cannot see how we can consider, with these conditions present and under such circumstances, the "brain, stomach, and liver," in fair condition. Typhoid fever does not and can not "abate immediately," under any course of treatment, and be controlled so nicely as to have convalescence established in "fifteen days, or possibly ten." Given a case of typhoid fever, and it is doing well if convalescence is established in five or six weeks; and any one who can give us a treatment for this disease, lessening its duration to "ten days," or "the mortality to five per cent," deserves as much as a Jenner, a McDowell, or a Sims, which means a high seat in the "temple of fame."

M. W. O'BRIEN, M. D.

Alexandria, Va., April 27, 1885.

Successive Craniotomies in the Same Subject.

EDS. MED. AND SURG. REPORTER:—

In your journal of February 7, under the title, "Successive Craniotomies in the same Subject," you very truly say that the operation is usually considered dangerous to the mother. For one, I think the opinion is an erroneous one when it is skillfully performed (and what operation should otherwise be made)? I have made the operation seventeen times during the past thirty-five years—three times each in two patients without the slightest unfavorable results.

Yours truly, D. COLVIN, M. D.

Clyde, N. Y.

* About one-fourth of the deaths occurred from debility, occasioned by diseased digestion after the throat affection was cured. Diphtheria cannot be aborted any more than scarlatina or measles.

NEWS AND MISCELLANY.

State Medical Society of Wisconsin, Session of 1885.

The 29th Annual Meeting of the State Medical Society will be held at the Court House, in Milwaukee, beginning on Tuesday, June 2, 1885, at 8 o'clock p. m.

The Address of the President, E. W. Bartlett, M. D., will be delivered on Tuesday evening. Subject: "Yours Fraternally."

The committee has assurance that the following papers may be expected from members of committees and it has the promise also of other papers of interest. It is hoped that each paper read may be followed by a full discussion of the subject treated of.

TITLES OF PAPERS PROMISED.

1. Diseases of the Rectum.
2. Comparative Merits of Syme's and Pirogoff's Operations.
3. On the Commitment of the Insane to our Hospitals, with Cases.
4. Anti-Rheumatics.
5. Comma Bacillus and Its Diagnostic Value.
6. Strangulated Inguinal Hernia.
7. Illustrious Insane.
8. A Case of Glioma.
9. Treatment of Hyperpyrexia.
10. New Remedies.
11. Review of Obstetrics.
12. Conservative Methods in Medicine.

The committee of arrangements announce that members of the Society will be entertained at the following rates at the hotels named, to wit: at the Plankinton House at from $2.50 to $5.00 per day; at the St. Charles at $2.00; at the Republican at $2.00; and at the Kirby on the European plan.

Members who have paid full fare in coming to Milwaukee, will be returned by the Chicago, Milwaukee & St. Paul, the Chicago & Northwestern, Milwaukee, Lake Shore & Western, Milwaukee & Northern, and Wisconsin & Michigan Railroads, at one-fifth the usual rates, on presentation of certificates of attendance which will be furnished by the Secretary during the session.

It is earnestly requested that every member who can be present at this meeting will take pains to do so, and that each will come prepared by the contribution of papers, or by participation in discussion, to add to the interest of the meeting.

It is again suggested that each member of the Society extend a cordial invitation to such worthy practitioners as he may be acquainted with, who are not already members of the Society, to attend this meeting, and to be henceforth not only with us but of us. J. T. REEVE, M. D., *Secretary.*

President—Dr. B. W. Bartlett, Milwaukee.

Vice-Presidents—Dr. S. L. Marston, Fond du Lac; Dr. G. M. Steele, Oshkosh.

Permanent Secretary and Treasurer—Dr. J. T. Reeve, Appleton.

Censors—1885, Dr. N. Senn, Milwaukee; 1886, Dr. W. Thorndike, Milwaukee; 1887, Dr. J. K. Bartlett, Milwaukee.

STANDING COMMITTEES.

Arrangements—Drs. Jas. Dorland, S. W. French, and J. W. Fisher.

Surgery—Drs. S. Marks, W. Meacher, and H. A. Chase.

Practice—Drs. Emory Stansbury, F. W. Epley, and Wm. Fox.

Obstetrics and Gynecology—Drs. L. G. Armstrong, Samuel Hall, and H. E. Mann.

Pathology—Drs. A. B. Farnham, John Binnie, and S. W. French.

Ophthalmology and Otology—Drs. Jos. Schneider, W. H. Searles, and W. F. Whyte.

New Remedies—Drs. Geo. C. Stockman, J. M. Dobson, and G. H Fox.

Special Committee on Diseases of Nervous System—Drs. J. H. McBride, R. M. Wigginton, and S. D. Buckmaster.

Special Committee on the Relations of the Medical Profession to Courts of Justice—Drs. F. W. Epley, J. G. Meachem, Jr., and E. M. Rogers.

On Finance—Drs. D. Mason, J. Phillips, and G. F. Witter.

Ethics—1885, Drs. E. W. Bartlett, J. G. Meachem, Jr., L. J. Barrows; 1886, Drs. J. G. Meachem, Sr., I. Manley, S. L. Marston: 1887, Drs. J. K. Bartlett, J. B. Whiting, N. M. Dobson.

Missouri State Medical Association.

At the annual meeting held in St. Joseph, May 12, 13, 14, the following papers were read:

"Asiatic Cholera," by Dr. Trader, of Sedalia.

"Atrophic Nasal Catarrh," by Dr. J. C. Mulhall, of St. Louis.

"The Neglected Precursory Symptoms of Cerebral Disease," by Dr. C. H. Hughes, of St. Louis.

"The Report on Ophthalmology," by Dr. J. H. Thompson.

"Bone Disease, and the Treatment of Cicatricial Tissue," by Dr. Lutz, of St. Louis.

"Malarial Disease in Children," by Dr. J. P. Kingsley, of St. Louis.

"The Asylum Treatment of the Insane," by Dr. Catlett.

"Morbus Coxarius," by Dr. Griffith.

"Diseases of Children," by Dr. Hanna.

"Typhoid Fever," by Dr. Wilson, of Salisbury.

"A Collective Investigation of Pneumonia," by Dr. B. F. Hart.

"Orthopœdic Surgery," by Dr. A. J. Steele, of St. Louis.

"The Determination of Sex," by Dr. Funkhouser, of St. Louis.

"Injuries to the Larger Joints," by Dr. Brooks, of Carthage.

"Report of a Case of Ovariotomy," by Dr. J. P. Chesney, of St. Joseph.

"Report on the Progress of Gynecology," by Dr. W. I. Hiddens, of St. Joseph.

The following officers were elected for the ensuing year:

Vice President—Dr. C. A. Todd, of St. Louis.

Recording Secretaries—Dr. J. H. Thompson, of Kansas City, and Dr. J. C. Mulhall.

Corresponding Secretary—Dr. F. J. Lutz, of St. Louis.

Treasurer—Dr. C. A. Thompson, of Jefferson City.

Medical and Chirurgical Faculty of Maryland.

At the eighty-seventh annual session, held in Baltimore, the following papers were read:

"Origin and Diffusion of Cholera," by Dr. Thomas S. Latimer (President).

"The Physiological Action of Drugs," by Professor H. Newell Martin, of Baltimore.

"The Report on Surgery," by Dr. Robert W. Johnson.

"The Report on Gynecology," by Dr. John Morris.

"An Obstetrical Forceps," by Dr. L. Earnest Neale.

"Experience with Antipyrin in Fevers," by Dr. John S. Lynch.

"Rectal Medication," by Dr. W. Cathell.

"The Germ Theory of Disease," by Dr. William Brinton.

"The Use of Muriate of Cocaine in Diseases of the Nose and Throat," by Dr. F. Donaldson, Sr.

"The Tonic Effects of Travel," by Dr. W. C. Van Bibber.

"The Non-necessity of Any Radical Change in the Present System of Disposal of the Dead," by Dr. George H. Rohé.

"Study of Hygiene in Medical Schools," by Dr. Jas. Carey Thomas.

"Laparotomy for Gunshot and Perforating Wounds of the Abdomen," by Dr. R. Winslow.

"Observations on the Origin and Cure of the Disease Called 'Hay Asthma' (Coryza Vasomotoria Periodica)," by Dr. J. N. MacKenzie.

"Ovariotomy," by Dr. Charles O'Donovan, Jr.

"Carbon as an Antiseptic," by Dr. David Stewart.

"Pericolitis Resulting from Perforation of the Bowels," by Dr. W. S. Maxwell.

The Faculty of Idleness.

Mr. Ernest Hart, the editor of the *Brit. Med. Jour.*, thus writes to his journal from Malta, where he has stopped on a sea-voyage:

A letter from ship-board can but be a vain thing, reflecting the idleness to which it is the first function of "a holiday at sea" to minister. Of such a state, there are many who can think only with pity, some only with disdain. To be shut up on ship-board is captivity; but, perhaps, one which holiday-hopes and a catholic appetite render the most delightful of prisons, the least suggestive of walls and bars. Boswell said to Dr. Johnson, "We grow weary when idle;" and the laborious lexicographer replied to the effect that "that is because, others being busy, we want company; but, were they also idle, there would be no weariness; we should all entertain one another."

That is a vivid picture of life on board-ship on a cruise on summer seas. The faculty of idleness is, in my conviction, one which busy men do well to cherish and cultivate. "To possess the soul in peace" is a means of physical and intellectual health, and an aid to the development of wholesome individuality. To be happily idle is a duty much disregarded, a capacity probably insufficiently esteemed, and a factor which physicians may wisely introduce systematically into their own lives, and prescribe for their patients. Undeviating devotion to what a man calls his business is commonly rated as a part of wisdom and virtue; but, if this be true, it is also only half true; and I am inclined to agree with Robert Louis Stevenson, who, in one of his charming essays, asks whether this undeviating devotion is not inevitably apt to be sustained only by undeviating neglect of many other things; and, again, whether it is at all certain that a man's "business" is the most important thing he has to do.

At any rate, in every man's life, there arrive seasons when it is well that he should step aside from the hustling crowd and struggling combat, to breathe a quiet air, dwell in other regions of thought, and understand, by inner experience, that in life there is a duty "to be," not at all less than a duty "to do." When physical infirmities accentuate this call, it need not be altogether regarded as a misfortune: and the imperative message to go South, or to dive into the far East, which wintry winds and chilly fogs bring to some of us, might well, perhaps, be more widely received and extensively obeyed.

Diseases among Indians.

Dr. Matthews writes a very interesting article on this subject in the *Canada Med. and Surg. Jour.*, March, 1885, from which we extract the following remarks on "Old Age:"

"Old age, although a cause of death, and can hardly be classed as a disease, is seldom attained to any great degree among the Indians. Within the last twenty years there are four instances, respectively estimated at 80, 85, 90 and 100; the latter I should question. When we take into consideration the life the Indian leads, the bitter winter and scanty clothing, the continuous exercise and precarious food supply, it cannot be wondered at that longevity is not often attained. But when the history of those around a settlement is examined, the wonder is still greater that even exceptional age should be reached. Adopting the habits of the white man, without his precautions, and drinking to excess of tea, whenever they can, in place of the spirituous liquors which they formerly indulged in whenever they could get them, taking to living in houses, instead of following their old wandering, open-air life, and thus being tied to one place, a lack of food-supply follows, and a condition of semi-starvation is sustained for years, only varied by a surfeit of venison, white bear's meat, or any food that happens to be temporarily plentiful. Some form of disease sets in, and when spring comes, their surroundings are permeated with emanations of offensive matter, for which reeking putridity is not too exaggerated a term; and lying in their close, hot houses, their scurvy breath rivals the offensiveness of the immediate outside air. Can it then be wondered at that comparatively early dissolution is the result, and that the bright, beautiful winter, with its cumulative suspended poison, is but a temporary negation of the disease-laden swamp of summer."

Salicylic Lemonade.

The *British and Colonial Druggist* says that as a "hospital beverage," which has lately been found of very great value in cases of typhoid and other fevers, scurvy and gout, the following cannot be too widely known, it having been, we understand, first devised by a late medical officer attached to the Soudan expedition:

℞.	Fruct. limon,	No. 10.
	Acid citric,	℥ss.
	Acid salicylic,	grs. 200.
	Sacch. alb.,	
	Aqua,	ãã q. s.

Squeeze the lemons and put the juice aside; boil the fruit in half or three-quarters of a gallon of water for fifteen or twenty minutes; after standing six hours take out the lemons, and again press them before throwing the exhausted pieces away. Add the juice and citric acid to the liquid, boil five minutes, and strain. Whilst hot add the salicylic acid, and stir until dissolved. Sweeten to taste with the white sugar, and make up the bulk to one gallon with water.

Salicylic lemonade may be taken freely, either of the strength here given, or diluted with half its bulk of water. It should be freshly made every two or three days, unless it be permissible to "qualify" it by the addition of a little pure French brandy. If required to be in "bright" condition, add, when cold, a little beaten up white of egg, boil for three minutes, and filter. If found rather too harsh for some tastes, dissolve in the boiling liquid, before straining, half an ounce of Nelson's Patent Opaque Gelatine, previously swelled for five hours in cold water.

A Pen-Picture of Dr. Ferran.

A daily contemporary has the following pen-picture of Dr. Ferrán, the Spanish physician, who has been making inoculation experiments with the virus of cholera:

"Dr. Jaime Ferrán is only thirty-three years of age, and after passing through the customary curriculum at the Institutes of Tortosa and Tarragona, took his M. D. degree at Barcelona. He has been in practice at Tortosa for several years, and is already well known for his work on micro-telephony in 1878, and for his curious investigations on micro-biology and parasites, which were rewarded by the Royal Academy of Medicine in Madrid. Dr. Ferrán was sent to Toulon and Marseilles during the last epidemic of 1884, and he spent several months with German, French, and Italian surgeons, studying the epidemic, and especially Dr. Koch's comma-bacillus. Those studies impelled Dr. Ferrán to pursue his investigation, on his return to his own country, and he thus came to the conclusion that Dr. Koch had only observed one of the many stages of this microbe's successive developments. Senor Ferrán has discovered that, by submitting the comma-bacillus to certain chemical elements very similar to the bile of animals and to the gastric juice of the human stomach this microbe passes through successive and invariable stages of development, in one of which he has detected the eggs, which are, in his opinion, the real generators and propagators of cholera."

Massachusetts State Medical Society.

This Society will hold its one hundred and fourth annual meeting at Huntingdon Hall, in Boston, on Tuesday and Wednesday, June 9 and 10. It is announced that the following papers will be read: "The Pathogenesis of Certain Affections of the Skin," by Dr. George N. Tilden, of Boston; "Consanguineous Marriages, their Effect upon Offspring," by Dr. Charles F. Withington, of Roxbury; "Labor Complicated with Fibroids," by Dr. James R. Chadwick, of Boston: "The Climatic Treatment of Phthisis," by Dr. Harold Williams, of Boston; "How a Lesion of the Brain Results in that Disturbance of Consciousness Known as Aphasia," by Dr. Morton H. Prince, of Boston; "The Relation of Insanity to Certain Nervous Affections," by Dr. Henry R. Stedman, of Roslindale; "Cremation in its Sanitary Aspects," by Dr. John O. Marble, of Worcester; "The Diagnosis and Treatment of Occipito-posterior Positions," by Dr. William L. Richardson, of Boston; and "The Influence of Ovariotomy on Surgery," by Dr. John Homans, of Boston. The Annual Discourse will be given by Dr. Franklin K. Paddock, of Pittsfield. Electrical and other apparatus will be exhibited on Tuesday, at the Institute of Technology.

Effects of Opium.

A sad statement concerning a once respected member of the profession, comes from San Francisco. The account reads:

"The fearful result of the opium habit was shown here this week by the death of Dr. Charles Pierce, late of Baltimore, from the effects of hypodermic injections of morphine. He and his wife had been living in a lodging-house for months, spending most of their money for morphine, to which they were both slaves. Finally, their money was all gone, and they were discovered half dead after four days without food. The doctor lived only one day, but his wife will probably recover. They held high social positions in Baltimore until he succumbed to the habit, and in nursing him his wife also learned to use the fatal drug."

Indiana State Medical Society.

At the annual meeting of this society held recently the following officers were elected for the ensuing year:

President—J. S. Gregg, M. D., of Fort Wayne.
Vice-President—W. J. Hurt, M. D., of Waynetown.
Secretary—E. S. Elder, M. D., of Indianapolis.
Assistant Secretary—W. H. Lopp, M. D., of Columbus.
Treasurer—G. W. H. Kemper, of Muncie.

Medical and Chirurgical Faculty of Maryland.

At the recent meeting of this society the following officers were elected for the coming year:

President—Dr. John R. Quinan.
Vice Presidents—Drs. A. H. Bayly, J. E. Michael.
Secretary—Dr. G. Lane Taneyhill.
Assistant Secretary—Dr. Robert T. Wilson.
Reporting Secretary—Dr. R. H. Thomas.
Treasurer—Dr. W. F. A. Kemp.

Alabama State Medical Association.

At the 37th annual meeting held in Greenville, April 14, 15 and 16, the following officers were elected for the ensuing year:

President—D. F. M. Peterson, of Greensboro.

Vice Presidents—Dr. Star, of Wilcox county, and Dr. Richard M. Fletcher, of Madison county.

The Assication will meet at Anniston next year.

Inoculation Against Cholera.

It is interesting to learn by the cablegrams that over 4,700 persons have been inoculated with cholera microbes by Dr. Ferran in the province of Valencia as a preventive of the disease. The new system is said to be entirely successful, and the epidemic is disappearing. Dr. Ferran intends to visit England within a few weeks.

Corrigenda.

On page 630 (May 16), second column, seventh line from bottom, for carbolic acid and camphor each ℥j. read ʒj.

Items.

—In the *Boston M. and S. Jour.*, March 19, Dr. Edward J. Forster reports a case of premature birth following the successful treatment of morphia-poisoning by atropia.

In the *Brit. Med. Jour.* Dr. Guillemard mentions a case of cataract-extraction with iridectomy, in which he had used cocaine with good effect, the patient feeling no pain throughout the operation.

—The Cleveland, Ohio, Board of Education, has issued an English version of the Brussels Manual for teachers, and adopted it for use in the public schools. This manual contains brief instructions as to the first symptoms of transmissible diseases.

—The Physicians of Lynchburg, Va., have organized a medical association with the following officers:

President—Dr. W. H. Dulaney.
Vice-President—Dr. D. A. Langhome.
Secretary—Dr. C. E. Busey.

—In the *Boston M. and S. Jour.*, February 19, Dr. Z. B. Adams thus sums up his objections to the routine use of the antiseptic douche in midwifery: "It is artificial; it is meddlesome, it is of doubtful utility; and it may be hurtful and even fatal."

—Among 7031 births in Prague, there are 3762 legitimate and 3329 illegitimate. It is a noteworthy fact that the death-rate among the illegitimate does not greatly exceed that which prevails among the legitimate.

—Haeckel gives a description of a new substance, called by him "dundakina," obtained from the bark of the *sarcocephalus esculenta*, growing in Senegal. It is a bitter resinoid substance, soluble in water and alcohol, possessing astringent and antipyretic properties, and has been proposed as a succedaneum of quinine.

—Dr. J. McAvoy writes to the *Lancet*, April 18, that a patient of his suffering from diabetes mellitus, in which the thirst was very excessive, he tried every known remedy to alleviate it without effect. He ordered glycerinum acidi carbolici in five-minim doses, and it relieved the patient at once. At present he is in good health, the urine being almost free from sugar.

—To the Midland Medical Society Dr. Suckling showed a case in which subcutaneous nodules around the knee, elbow, and finger-joints were present. The patient, a girl aged nine, had had rheumatic fever, and six months previously there was a well-marked double mitral *bruit;* the nodules seemed to be attached to the periosteum and tendons about the joints, and were painful at times.

—A prize of $1,000 and a gold medal, offered by the Emperor of Germany for the best model of a soldiers' barrack and field hospital, is to be awarded at the forthcoming Antwerp Exhibition, and American inventors are invited to compete. The barrack must be large enough to contain twelve beds. It must be easy of transportation, made with interchangeable parts, and capable of being taken down and reconstructed.

—At a meeting of the Lyons Medical Society (*Lyon Médical*, March 15, 1885), M. Icard related a case of accidental poisoning by the injection of about two and a half drachms each of laudanum and tincture of belladonna. The patient was not seen until several hours after the mixture had been taken. After the unsuccessful employment of emulsives, M. Icard had recourse to hypodermic injections of ether, and the patient finally recovered.

—The application of pure benzole to rodent ulcers is commended, and has been practiced, by Dr. Sherwell, of New York. It does not cause pain, but destroys the sensibility of the parts, giving them a blanched appearance and causing a kind of mummification. After a time a scab is formed, which should be removed and more benzole applied. He suggests also the employment of benzole in cases of cancer of the os uteri, but it may be doubted whether its application to this site would prove efficacious.

Personal.

—Dr. B. F. Baer, President of the Philadelphia Obstetrical Society, and late Demonstrator of Diseases of Women in the University of Pennsylvania, has been elected Professor of Diseases of Women and Children in the Philadelphia Polyclinic and College for Graduates in Medicine.

—Dr. H. Augustus Wilson, having returned from his studies abroad, has been elected Professor of Fractures and Dislocations in the Philadelphia Polyclinic and College for Graduates in Medicine, and Secretary of the Faculty.

QUERIES AND REPLIES.

MESSRS. EDITORS:—

Please answer the following question in the next issue of the REPORTER: How do you estimate the per cent. of a solution? It is argued by some to be the number of grains to the ounce of distilled water, or whatever the menstruum may be. I have always regarded the per cent. of a solution to be the relation between one and one hundred; for instance: Five grs. of hydrochlorate of cocaine to 100 grs. of distilled water makes a five per cent. solution, as I understand it. Am I right or wrong?

Manchester, Ohio. R. A. STEPHENSON, M. D.

Ans.—The per cent. of a solution is as 1 to 100. You are correct in your view. EDS. REPORTER.